DOCUMENT RESUME

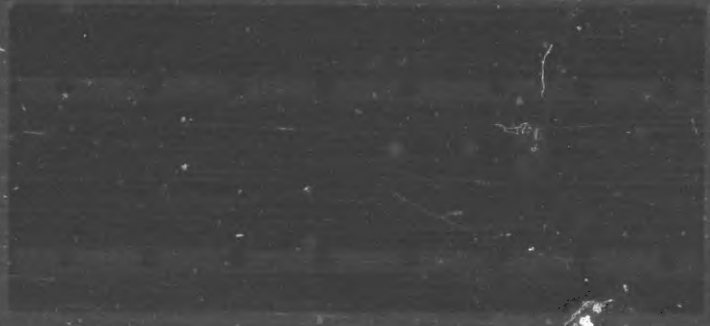
ED 090 354 UD 014 175

TITLE	The Title I, ESEA Program in Minneapolis 1972-73: An Evaluation.
INSTITUTION	Minneapolis Public Schools, Minn. Dept. of Research and Evaluation.
REPORT NO	MPS-C-72-65
PUB DATE	Feb 74
NOTE	96p.
EDRS PRICE	MF-$0.75 HC-$4.20 PLUS POSTAGE
DESCRIPTORS	*Basic Skills; Curriculum Development; Elementary Schools; *Federal Programs; Inservice Teacher Education; Mathematics Instruction; Nonpublic School Aid; Paraprofessional School Personnel; *Program Evaluation; Public Schools; Reading Programs; Secondary Schools; *Urban Schools
IDENTIFIERS	Elementary Secondary Education Act Title I; ESEA Title I; Minneapolis; *Minnesota

ABSTRACT

This deals with impact of Minneapolis Title I, Elementary Secondary Education Act, funded programs on children's achievement. In Minneapolis, Target schools are those schools that have a higher percentage of low income/Aid to Families of Dependent Children (AFDC)/foster children than the city as a whole. In Minneapolis in 1972-73, there were 40 Target schools: 25 public elementary schools, five public junior high schools, three public senior high schools, and seven parochial schools. The Minneapolis plan for use of Title I funds during 1972-73 emphasized helping children in elementary schools improve their reading and math skills. Title I funds were used to provide the same basic reading and math services for all Target schools. Use of these centralized services helped overcome the problem of student mobility, made development and acquisition of educational materials more economical, and allowed for a coordinated in-service teacher training program. All Target elementary schools benefitted from the services of the Primary Reading Team, Intermediate Reading Team, Title I Math Team, Instructional Materials Center and Cassette Program, and many used the services of the Basic Skill Centers. Secondary Target schools received services from the Mathematics Basic Skills Development Project, the Job Corps Reading Project, the Mobile Learning Centers and the Basic Skill Centers. Each Target school faculty designed a program for use in its own building during 1972-73. (Author/JM)

Planning
Development
Federal Programs



Educational Services

Minneapolis Public Schools

ED 090354

Minneapolis Public Schools

The Title I, ESEA Program in Minneapolis 1972-73

An Evaluation

Ideas expressed in this report do not necessarily reflect the official position of the Minneapolis Public School Administration nor the Minneapolis School Board.

UD 014175

C-72-65
February 1974

Research and Evaluation Department
Planning and Support Services Division
807 N. E. Broadway
Minneapolis, Minnesota 55413

Minneapolis Public Schools

The Title I, ESEA Program in Minneapolis 1972-73 An Evaluation

Summary

	See Page
In 1972-73, Minneapolis received 3.4 million dollars from Title I, ESEA to serve 10,600 educationally disadvantaged pupils. Major program emphasis was placed on teaching basic skills to primary grade children in 25 public and four parochial schools. A needs assessment, conducted in April 1972, indicated reading and math as the two major educational problems.	9
Evaluations of specific projects showed continuing gains in pupil achievement in the Basic Skill Centers, Individually Prescribed Instruction (IPI) in math, and in the Mobile Learning Laboratories.	23-51
Summaries of evaluation results for a number of projects are presented.	
Has Title I had an impact on the achievement of pupils in Minneapolis? Two studies suggest that it has. The trend of achievement test scores in Minneapolis is up. The trend in Title I schools is up also. One study showed that the gap in achievement test scores between Title I schools and other schools was closing. Another study showed that the gap was not closing, nor was it increasing. Either interpretation suggests a favorable impact of Title I programs since the proportion of low income children rose substantially in Title I schools but only slightly in non-Title I schools. The experience of other cities would suggest that test scores would decline in Minneapolis as the proportion of low income children increased. Such a decline did not occur.	53-78
An attempt to show cause and effect relationships between one major reading project and increased test scores did not succeed. However, gains have been greater in the primary grades--those grades on which the program was focussed.	76
Student opinions about school were found to be more favorable in Title I schools than in other schools.	79
At present, we can take an optimistic view of the improved achievement of pupils in Minneapolis, Title I and non-Title I alike. This improvement appears due to many things, including the Title I program.	78
Recommendations are given.	82

* * *

January 1974

Research and Evaluation Department
Planning and Support Services Division

Table of Contents

	Page
The City of Minneapolis	1
The Minneapolis Schools	3
The Title I Target Area and Its Schools	5
The Title I Program in Minneapolis	9
What Are Title I Programs and Who Are They For?	9
New Emphasis on Reading and Math	10
Who Benefits from Title I Programs?	11
How Are Target Schools Selected?	12
Which Schools Are the Target Schools?	12
Who Plans Title I Programs?	12
What Kinds of Programs in Minneapolis are Supported With Title I Funds?	13
What is the Relationship of Title I Funds to Local Funds?	13
How Are Title I Programs Evaluated?	14
How is the Community Involved in Title I?	15
Needs Assessment	16
Title I Program Goals for 1972-73	18
Evaluation of Title I Projects	19
Project Description	19
Evaluation of Project Operations	21
Evaluation of Results	21
A Review of Evaluations by People Outside the School System	22
Evaluation Summaries of Individual Title I Projects	23
Auxiliary Personnel	24
Basic Skill Centers	27
Bryant Junior High School Concentrated Education Center	30
Bryant Youth Educational Support Center	32
English Basic Skills	34
IPI Mathematics Project	36
Lincoln Learning Center	39
Mathematics Basic Skills Development Project	41
Math Program (Elementary)	43
Minneapolis Public Schools - Parochial Schools Title I Cooperative Project	45
Mobile Learning Centers	47
Pyramids Reading Program	49

Evaluation of the Impact of the Title I Program. 53

Research and Evaluation Department Trend Analysis of Test Results Since 1965. 53

Guidance Department Comparison of Target and Citywide Test Scores: 1970-1972 66

R and E Analysis of Reading and Math Progress of a Sample of Title I Intermediate Grade Pupils. 74

ETS Sibling Control Study of the Title I Pyramids Reading Program 76

What Impact Has the Title I Program Had in Minneapolis?. 77

A Note on Students' Opinions 79

Conclusions and Recommendations. 81

Appendices:

A Needs Assessment Instrument. 84

B List of 1972-73 Evaluation Reports Available 86

List of Tables and Figures

Table		Page
1	Minneapolis Title I Schools 1965-1973.	6

Figure		
1	Minority Students - Minneapolis Elementary Schools .	55
2	AFDC - Elementary School Medians	56
3	Elementary School Turnover Rate	58
4	Metropolitan Readiness Test, Form A 1st Grade Median Scores.	60
5	Bond-Balow-Hoyt Reading Test, Form L-1, Word Recognition, 2nd Grade Median Scores	61
6	Gates-MacGinitie Reading Test, Primary C, Comprehension 3rd Grade Median Scores.	62
7	Gates-MacGinitie Reading Test, Survey D, Form 1-M, Comprehension 5th Grade Median Scores.	63
8	Iowa Tests of Basic Skills, Form L, Reading Comprehension and Gates-MacGinitie Reading Comprehension 6th Grade Median Scores.	64
9	Three Year Summary Report of Test Results Grades 1 and 2	69
10	Three Year Summary Report of Test Results - Grade 3.	70
11	Three Year Summary Report of Test Results - Grade 5.	71
12	Three Year Summary Report of Test Results - Grade 6.	72
13	Three Year Summary Report of Test Results - Grade 6.	73

The Title I, ESEA Program in
Minneapolis 1972-73
An Evaluation

The City of Minneapolis

The program described in this report was conducted in the Minneapolis Public Schools. Minneapolis is a city of 434,400 people located on the Mississippi River in the southeastern part of Minnesota. With its somewhat smaller twin city, St. Paul, it is the center of a seven-county metropolitan area of over 1,874,000, the largest population center between Chicago and the Pacific Coast. As such it serves as the hub for the entire Upper Midwest region of the country.

The city, and its surrounding area, long has been noted for the high quality of its labor force. The unemployment rate in Minneapolis is lower than in other major cities, possibly due to the variety and density of industry in the city as well as to the high level capability of its work force. The Twin City metropolitan area unemployment rate in June of 1973 was 3.3%, compared with a 4.8% national rate for the same month. As the economic center of a prosperous region rich in such natural resources as forests, minerals, water power and productive agricultural land, Minneapolis attracts commerce and workers from throughout the Upper Midwest region. Many residents are drawn from the neighboring states of Iowa, Wisconsin, Nebraska and the Dakotas as well as from the farming areas and the Iron Range region of outstate Minnesota.

More Minneapolitans (32%) work in clerical and sales jobs than in any other occupation, reflecting the city's position as a major wholesale-retail center and a center for banking, finance and insurance. Almost as many (26%) are employed as craftsmen, foremen and operatives, and 23% of the work force are professionals, technicians, managers, and officials. One out of five workers is employed in laboring and service occupations.

Minneapolis city government is the council-dominated type. Its mayor, elected for a two year term, has limited powers. Its elected city council operates by committee and engages in administrative as well as legislative action.

Minneapolis is not a crowded city. While increasing industrial development has occupied more and more land, the city's population has declined steadily from a peak of 522,000 in 1950. The city limits have not been changed since 1927. Most homes are sturdy, single family dwellings built to withstand severe winters. Row homes are practically nonexistent even in low income areas. In 1970, 48% of the housing units in Minneapolis were owner-occupied.

Most Minneapolitans are native born Americans, but about 35,000 (7%) are foreign born. Swedes, Norwegians, Germans, and Canadians comprise most of the foreign born population.

Relatively few non-white citizens live in Minneapolis although their numbers are increasing. In 1960 only three percent of the population was non-white. The 1970 census figures indicate that the non-white population had more than doubled (6.4%) in the intervening 10 years. About 70% of the non-whites are black. Most of the remaining non-white population is American Indian, mainly Chippewa and Sioux. Only a small number of residents from Spanish-surnamed or Oriental origins live in the city. In 1970 non-white residents made up 6.4% of the city's population but accounted for 15% of the children in the city's elementary schools.

Minneapolis has not reached the stage of many other large cities in terms of the level of social problems. It has been relatively untouched by racial disorders or by student unrest. Crime rates are below national averages.

One's first impression is that Minneapolis doesn't really have serious problems of blight and decay. But the signs of trouble are evident to one who looks beyond the parks and lakes and tree-lined streets. As with many other larger cities, the problems are focused in the core city and are related to increasing concentrations there of the poor, many of them non-whites, and of the elderly. For example, nine out of 10 black Americans in Minneapolis live in just one-tenth of the city's area. While Minneapolis contains 11% of the state's population, it supports 28% of the state's AFDC families.

There has been a steady migration to the city by American Indians from the reservations and by poor whites from the small towns and rural areas of Minnesota. They come to the "promised land" of Minneapolis looking for a job and a better way of life. Some make it; many do not. The American Indian population is generally confined to the same small geographic areas in which black Americans live. These same areas of the city have the lowest median incomes in the city and the highest concentrations of dilapidated housing, welfare cases, and juvenile delinquency.

The elderly also are concentrated in the central city. In 1970, 15% of the city's population was over age 65. The elderly, like the 18 to 24 year old young adults, live near the central city because of the availability

of less expensive housing in multiple-unit dwellings. Younger families have continued to migrate toward the outer edges of the city and to the surrounding suburban areas.

The Minneapolis Schools

About 69,477 children go to school in Minneapolis. Most of them, about 61,052, attend one of the city's 98 public schools; 8,425 attend parochial or private schools.

The Minneapolis Public Schools, headed by Dr. John B. Davis, Jr., who became superintendent in 1967, consists of 67 elementary schools (kindergarten-6th grade), 15 junior high schools (grades 7-9), nine high schools (grades 10-12), two junior-senior high schools, and five special schools. Nearly 3,500 certificated personnel are employed.

Control of the public school system ultimately rests with a seven-member board which levies its own taxes and sells its own bonds. These unpaid officials are elected by popular votes for staggered six-year terms. The superintendent is selected by the board and serves as its executive officer and professional adviser.

Almost 40 cents of each local property tax dollar goes to support a school system whose annual operating general fund budget in 1973-74 is $81,038,330 up from $78,992,236 in 1972-73. Minneapolis received federal funds totaling 11.8 million dollars in 1972-73 from many different federal aid programs. The Elementary and Secondary Education Act provided about 6.5 million dollars, of which 3.4 million dollars were from Title I funds. The adjusted maintenance cost per pupil unit in the system was $981 in 1971-72 while the range of per pupil unit costs in the state for districts maintaining elementary and secondary schools was from $563 to $1,324.

One of the superintendent's goals has been to achieve greater communication among the system's schools through decentralization. Initially, two "pyramids" or groups of geographically related schools were formed. First to be formed, in 1967, was the North Pyramid, consisting of North High School and the elementary and junior high schools which feed into it. In 1969 the South-Central Pyramid was formed around South and Central High Schools. Each pyramid had an area assistant superintendent as well as advisory groups of principals, teachers, and parents. The goals of the pyramid structure were to effect greater communication among schools and between schools and the community, to develop collaborative and cooperative programs, and to

share particular facilities and competencies of teachers.

In the summer of 1973 decentralization was carried one step further when the entire school district, with the exception of five schools involved in an experimental program called Southeast Alternatives, was divided into three areas. Each of these areas--East, West and North--is headed by an Area Superintendent who has autonomous decision-making power within the guidelines of school district policies and philosophies.

Based on sight counts on October 17, 1972 the percentage of black American pupils for the school district was 10.6%. Eight years before, the percentage was 5.4%. American Indian children comprised 3.8% of the school population in 1972, more than double the proportion of eight years ago. The proportion of minority children in the various elementary schools generally reflects the prevailing housing pattern found in each school area. Although some non-white pupils are enrolled in every elementary school, non-white pupils are concentrated in two relatively small areas of the city. Of the 67 elementary schools, 11 have more than 30% non-white enrollment and four of these have over 50%. There are no all-black nor all-white schools. Twenty-three elementary schools have non-white enrollments of less than 5%.

(The Minneapolis School Board has approved a desegregation plan involving busing which has operated smoothly since taking effect in September 1973. This plan should result in more racially "balanced" schools.)

The proportion of school age children in AFDC homes has more than doubled from approximately 12% in 1962 to 28% in 1972.

While the median pupil turnover rate for all the city schools in 1971-72 was about 24.5%, this figure varied widely according to location. (Turnover rate is the percentage of students that comes new to the school or leaves the school at some time during the school year, using the September enrollment as a base figure.) Title I, Target Area schools generally experience a much higher turnover rate; in fact only four of the Target Area schools had turnover rates less than the city median. Compared with the city, the median for the Target Area schools was 36.1%.

The Title I Target Area and Its Schools

The Target Area is part of the central city of Minneapolis in which schools are eligible for programs funded under Title I of the Elementary and Secondary Education Act (ESEA). A school is eligible to receive Title I aid if the percentage of families within the school attendance area receiving AFDC payments in excess of $2,000 a year, or having an annual income under $2,000 exceeds the citywide percentage for families in those categories. (More detail on eligibility is given on pages 11 and 12.)

According to 1970 census data, over 170,000 persons resided in the Target Area. Of that group, 11 percent were black and 3½ percent were Indian, more than double the citywide percentage of minority group members. More than half of the Target Area residents over 25 years of age had not completed high school, compared to 35 percent of the non-Target Area residents who did not have high school diplomas. One out of five Target Area residents over the age of 25 had gone to college, and nine percent had completed four or more years. One out of four non-Target Area residents had gone to college, and 15 percent had completed four or more years.

The income for an average Target Area family was $9,113 in 1970, about $2,000 less than the citywide average. The homes in which they lived had an average value of $10,385, about 40 percent less than the average value of a single family residence in Minneapolis. Twenty percent of Target Area children between the ages of 6 and 17 were members of a family that had an income below the poverty level, while only 6 percent of the non-Target Area children were members of such families.

In 1972-73, in the 25 elementary schools, five junior highs, three senior highs and seven parochial schools that received Title I aid there were 26,871 students. One-third of these students were from minority ethnic groups. About 10,600 students were eligible to receive Title I program benefits.

Table 1 on page 6 lists the Target elementary, secondary and parochial schools for each year since 1965-66, when Title I funds first became available. The table shows that 14 of the 25 public elementary Target schools in 1972-73 had been designated as Target schools every year since 1965-66.

Table 1
Minneapolis Title I Schools
1965-1973

Elementary	65-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73
Adams	X	X	X	X	X	X	X	Closed
Bancroft						X	X	X
Blaine	X	X	X	Closed				
Bremer	X	X					X	X
Calhoun								X
Clinton	X	X	X	X	X	X	X	X
Corcoran	X	X	X	X	X	X	X	X
Douglas								X
Emerson	X	X						
Grant/Bethune	X	X	X	X	X	X	X	X
Greeley	X	X	X	X	X	X	X	X
Hall	X	X	X	X	X	X	X	X
Harrison	X	X	X	X	X	X	X	X
Hawthorne	X	X	X	X	X	X	X	X
Hay	X	X	X	X	X	X	X	X
Holland								X
Irving	X	X	X	X	X	X	X	X
Lowell	X	X				X	X	X
Lyndale		X	X	X	X	X	X	X
Madison	X	X	X	X	X	X	X	X
Main	X	X	X	X	X	X	X	X
Marcy	X	X						
Monroe	X	Closed						
Motley } paired in	X	X	X	X	X	X	X	
Pratt } 1971-72	X	X	X	X	X	X	X	
Pierce	X	Closed						
Prescott							X	X
Putnam								X
Seward	X	X	X	X	X	X	X	X
Sheridan	X	X	X	X	X		X	X
Warrington	X	Closed						
Webster	X	X	X	X	X	X	X	X
Whittier			X	X	X	X	X	X
Willard	X	X	X	X	X	X	X	X
Totals	26	24	21	20	20	22	25	25

(X indicates Title I eligibility)

Table 1 (continued)

Secondary	65-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73
Junior High								
Bryant	X	X	X	X	X	X	X	X
Franklin	X	X	X	X	X	X	X	X
Jordan							X	
Lincoln	X	X	X	X	X	X	X	X
Phillips	X	X	X	X	X	X	X	X
Sheridan	X	X	X	X	X		X	X
Senior High								
Central	X	X	X	X	X	X	X	X
North	X	X	X	X	X	X	X	X
South	X	X	X	X	X	X	X	X
Totals	8	8	8	8	8	7	9	8
Parochial Schools								
Ascension	X	X	X	X	X	X	X	X
Basilica	X	X	X	X	X	X	X	X
Holy Name						X	X	
Holy Rosary	X	X	X	X	X	X	X	X
St. Anne						X	X	X
St. Phillips	X	X	X	X	X	X	X	Closed
St. Stephen	X	X	X	X	X	X	X	X
St. Joseph	X	X	X	X	Closed			
St. Boniface	X		X	X	X		Closed	
St. Cyril	X		X	X	X		X	X
Holy Cross	X						X	X
Totals	9	6	8	8	7	7	9	7

Four of the five junior highs, four of the seven parochial schools and all three of the senior high schools also have been designated as Target schools consistently since 1965.

In Minneapolis, in 1972-73, there was a total of 67 elementary schools, 15 junior high schools, 11 senior high schools, and 35 parochial schools. Thus, about one-third of all Mirneapolis schools were designated as Title I schools for the year.

The Title I Program in Minneapolis

From 1965 to June 1973, the Minneapolis Public Schools received $21,216,270 from the federal government under Title I of the Elementary and Secondary Education Act. The maximum allotment for a single year was $3,408,083 in 1972-73; the minimum, $2,274,236 in 1969-70.

This report deals with the impact of Minneapolis Title I funded programs on children's achievement. One part of the report examines the effect of Title I programs as a whole over the eight year period since funding began. The second part of the report details the results of specific programs conducted in the 1972-73 school year. The report begins with a brief history of Title I funds for education.

What Are Title I Programs and Who Are They For?

In 1965, in communities across the nation, Title I meant:

- Remedial reading centers
- Family counseling
- Art Action Centers for first graders
- Clothing for low-income children to wear in physical education classes
- Free breakfasts for poor children
- Work-study programs for teenagers

It meant services for children who were "economically, educationally, and culturally disadvantaged," in practical terms, for all children living in ghetto areas.

In 1972-73, Title I meant:

- Intensive instruction in reading and arithmetic for children who lived in low income areas who were at least one year behind grade level in these subjects
- Emphasis on reaching children in grades K-3
- Detailed evaluation of children's grade level gains in reading and arithmetic

Why the change?

When the Elementary and Secondary Education Act (ESEA) was passed in 1965, it was called a "new front" in the "War on Poverty." Educators and legislators assumed that ESEA would offer services to poor children and that the poverty program would provide for low-income adults--health care, social services, cultural opportunities--as well as better education.

The assumption was that if poor children got more of the kinds of experiences and services that middle class children took for granted, they would do better in school. A brochure about Title I published in 1966 by the U. S. Office of Education, stated:

> Educators who serve children in low income areas of the country now realize that a major reason their youngsters do not succeed in school is a lack of proper food and clothing. They have learned.....of the necessity for special enrichment, cultural and recreational activities to help fill the vacuum in their students' lives. Their new programs also are being geared to overcome the social and emotional inadequacies that are partially responsible for the failures of these youngsters.

But the expectations of those early years were not realized. The wide range of services and programs may have benefitted many children, but it did not produce measurable gains in school achievement. Apparently, Title I was trying to do too many things for too many children with too little money. In Minneapolis, for example, the number of low income children in the city rose from about 9,000 in 1966 to 14,000 in 1970, but the amount of Title I money stayed about the same. During these years, the school district had developed many different types of service and educational programs, some of which included most of the children who attended schools in low income areas of the city.

By 1969, congressmen and educators were concerned about Title I:

- There was no proof, from the collection of test data, that Title I programs worked
- In some cases, the schools were providing services with Title I funds that were the responsibility of other agencies.

New Emphasis on Reading and Math

The result was a new emphasis for Title I programs that made a measurable difference in children's learning of critical skills; in short, an emphasis on reading and arithmetic. It meant concentrating the money on children in lower grades who were just learning these skills. It meant concentrating on children who were already behind or who were most likely to fall behind. It meant limiting the programs to those having a direct effect on teaching reading and arithmetic--through extra teachers in these subjects, better teaching materials, more training for teachers.

Fortunately, the federal funding requirements coincided with what Minneapolis teachers wanted from Title I--more help in teaching reading to young children. The Title I Reading Program began in the Minneapolis Public Schools in 1968 because teachers requested it.

Among other changes in programming over the years:

- Title I programs not related to teaching reading or arithmetic were gradually phased out or shifted to local funding.
- Programs in line with new national and local priorities were developed. The most recent addition is a math program for elementary children started in 1972.
- Title I programs for high school students were being phased out.
- New programs concentrated services on elementary school children or on junior high students with lowest skills.

(Only two programs--the Lincoln Learning Center and the teacher aide program--have been in progress since 1965. Both now get federal and local funding. The Lincoln Learning Center is a special program for junior high students who need an intensive program away from the regular school. The teacher aide program has trained aides to help with reading and math instruction and to take over non-teaching jobs from teachers, who can then spend more time teaching Title I children.)

Who Benefits from Title I Programs?

Even though Title I funds are allocated to Minneapolis on the basis of the number of children from low income families throughout the city, federal guidelines require that Title I funds be spent only in selected "Target" schools that have many of these children. This means that only children who live in the attendance areas of Target schools may benefit from Title I programs.[1]

Educationally disadvantaged children attending Target schools benefit. Within each Target school, educational need determines which children get extra help. Title I programs must serve only children who are educationally disadvantaged; meaning children who are one or more years below grade level in reading, math, or both. Children who have physical, mental or emotional handicaps may benefit too. In 1972-73, Minneapolis served about 10,600

[1] Children living in AFDC families, foster homes, or low income families--as specified by certain poverty criteria--as well as "neglected and delinquent children" are counted each year to help determine the allocation of Title I funds to Minneapolis.

children with Title I programs.

The federal government now requires that Title I services be provided to "a limited number of the most seriously deprived" children. In Minneapolis, educationally deprived children were identified in two ways during 1972-73:

- By teachers' ratings of each child's intellectual and emotional development, behavior, work habits, health, and nutrition
- By testing children in grades one and above.

Each Title I school maintains an up-to-date list of Title I eligible pupils. Schools must show that Title I teachers, aides, supplies, and materials are being used only for children on the eligible list.

How Are Target Schools Selected?

In Minneapolis, Target schools are those schools that have a higher percentage of low income/AFDC/foster children than the city as a whole. In 1972-73, 26% of the school age children in Minneapolis were from families in these categories, so Target schools were all schools with more than 26% eligible income children residing in their attendance areas.

Which Schools Are the Target Schools?

In Minneapolis in 1972-73, there were 40 Target schools: 25 Target public elementary schools: Bancroft, Bethune, Bremer, Calhoun, Clinton, Corcoran, Douglas, Greeley, Hall, Harrison, Hawthorne, Hay, Holland, Irving, Lowell, Lyndale, Madison, Mann, Prescott, Putnam, Seward, Sheridan, Webster, Whittier, Willard.

Five Target public junior high schools: Bryant, Franklin, Lincoln, Phillips, and Sheridan.

Three Target public senior high schools: Central, North, South.

Seven Target parochial schools: Ascension, Basilica, Holy Cross, Holy Rosary, St. Anne, St. Cyril, and St. Stephen.

Who Plans Title I Programs?

Title I programs are planned and funded one year at a time, based on approval of a detailed annual application submitted to the Minnesota State Department of Education, which administers Title I funds for the Federal government. The Office of Planning, Development and Federal Programs of the Minneapolis Public Schools coordinates the planning, which

involves the efforts of the principal and staff in every Target public and parochial school, the Title I Parent Advisory Committee, the Area superintendents, and top administrative staff of the Minneapolis Schools. (The Areas are groups of schools in the same part of the city that were organized into decentralized planning and administrative units in 1973-74 with an assistant superintendent responsible for the overall program in each area.)

What Kinds of Programs in Minneapolis are Supported With Title I Funds?

The Minneapolis plan for use of Title I funds during 1972-73 emphasized helping children in elementary schools improve their reading and math skills.

Title I funds were used to provide the same basic reading and math services for all Target schools. Use of these centralized services helped overcome the problem of student mobility (children who live in the inner city frequently move from school to school within the inner city), made development and acquisition of educational materials more economical, and allowed for a coordinated in-service teacher training program. All Target elementary schools benefitted from the services of the Primary Reading Team, Intermediate Reading Team, Title I Math Team, Instructional Materials Center and Cassette Program, and many used the services of the Basic Skill Centers.[2] Secondary Target schools received services from the Mathematics Basic Skills Development Project, the Job Corps Reading Project, the Mobile Learning Centers and the Basic Skill Centers.

Each Target school faculty designed a program for use in its own building during 1972-73. Schools hired extra teacher aides, supplementary teachers, and Special Learning Behavior Problems (SLBP) teachers funded under Title I, and drew on the centralized services, to serve their children.

What is the Relationship of Title I Funds to Local Funds?

All Title I funds must be used to supplement, not supplant, funds that the local school district has been using to provide remedial services. School systems receiving Title I funds are required to maintain in Target schools the same level of local expenditure that would be maintained if

---

[2] Descriptions of these projects are given starting on page 23.

there were no Title I funds. Districts cannot use local or state funds to provide services for non-Title I children while using Title I funds to provide the same services for Title I-eligible children. Minneapolis has consistently complied with this requirement.

How Are Title I Programs Evaluated?

A variety of methods are used to evaluate Title I projects. They will be outlined here and described more fully in the section on Evaluation of Title I Projects, page 19.

First, each project director is required to complete an annual descriptive report on his project. This report is based on a workbook developed by the Research and Evaluation Department. The workbook covers most of the details found in the U. S. Office of Education handbook on how to write evaluation reports.[3] This descriptive report does not require an evaluation by the project director although in a number of cases project directors do submit evaluation information.

Most evaluation studies are conducted by Research and Evaluation Department personnel of the Minneapolis Public Schools. The focus of these studies is on determining whether or not each project achieved its goal. In recent years, increased emphasis also has been placed on evaluating whether or not the project operations were conducted according to plan.

Sometimes an evaluation contract will be given to an outside agency in order to obtain an external view of a Title I project.

On occasions, the work of the Research and Evaluation Department, as well as the work of external contractors, is reviewed by independent evaluation auditors. The auditor certifies whether or not the evaluation has been conducted in good order. A copy of the auditor's report goes to the State Department of Education.

Monitors, working out of the Office of Planning, Development and Federal Projects, also play an evaluation role. Their job is to see that the program operations are carried out in accordance with state, federal and local guidelines and regulations.

Finally, the Title I Parent Advisory committee plays a role in evaluation. This committee reviews all evaluation reports and observes Title I projects in action.

---

[3] Preparing Evaluation Reports: A Guide for Authors. U. S. Department of Health, Education, and Welfare, Office of Education, U. S. Government Printing Office Washington: 1970

This diverse approach to evaluation helps insure a more objective view of Title I projects in Minneapolis since a variety of views, based upon a variety of evaluation methods, is obtained.

How is the Community Involved in Title I?

Federal guidelines require a Title I Parent Advisory Committee which must be composed of at least 50% parents of children being served by Title I. The Title I Parent Advisory Committee to the Minneapolis Schools has developed a statement of purpose "to assist in planning, implementation, and evaluation, using all available means and lines of communication to help children who are eligible for Title I." Advisory Committee members are responsible for communicating with parents about Title I programs, and for stimulating parent involvement. Members are encouraged to discuss Title I programs with other community organizations to which they belong.

Parents of Title I children have approved--and in some cases suggested--the Title I program changes of the last few years. Each Title I elementary school selects a parent representative to the Advisory Committee. Meetings are held monthly during the school year. The committee was organized in 1970 in response to federal and state guidelines. It has grown from 13 to 39 members.

News articles about Title I programs are published regularly in the Area Newsletters, which are sent to parents of all children in each Area.

Copies of a brochure, Federal Programs in the Minneapolis Public Schools, are available. A slide-tape show and a color film about Title I in Minneapolis Schools were shown in many of the schools during PTA meetings and are available for public use.

Needs Assessment

In April 1972, all teachers in Minneapolis Title I Target Area Elementary schools filled out a needs assessment questionnaire for each student in their classroom (See Appendix A for needs assessment questionnaire).

The purposes of the needs assessment were threefold: (1) to determine students' areas of weaknesses and thus identify the need for specific programs; (2) to identify pupils for participation in these programs; and (3) to satisfy state and federal reporting requirements.

About 12,000 students were rated. Teachers rated the students on a scale of 0 to 5 on 14 items. A zero indicated that the student had no problem; a 5 indicated a severe problem.

The items on which each child was rated were:

School	Health
1. Reading achievement	1. Social-emotional
2. Math achievement	2. Speech
3. Spelling achievement	3. Mental retardation
4. Language arts	4. Vision
5. Work-study habits	5. Hearing
6. Attendance	6. Physical handicap
	7. Malnutrition
	8. Chronic Disease

The results of the needs assessment showed:[4]

1. The number one school problem reported by teachers was reading, followed closely by math, spelling and language arts. Work-study habits and attendance were ranked a distant 5th and 6th place. The data indicated that 25% of the elementary students in the Target Area had a serious or severe reading problem (4-5 rating). Twenty-one percent had serious or severe problems in math, 20% had serious or severe spelling problems, and 19% had serious or severe problems in language arts. Sixteen percent had serious or severe work-study habits and only 4% had a serious attendance problem.

2. Most Target Area students performed well in the basic skills subject areas as indicated by the percentage of students who were rated as having little or no problem in the skill areas. For example, nearly half had no reading, math, spelling or language arts problems; others had only minor problems in these topics. Fifty-two percent had no work-study problems and 80% had good attendance in school.

---

[4] Bergeth, R. L. and Randall, F. T. A Needs Assessment Study: Minneapolis Public Schools ESEA I Target Area Elementary Schools, 1971-1972. Unpublished manuscript, Minneapolis: Minneapolis Public Schools, 1972.

3. The general health of most students was judged to be good. Although 8% of the students were reported to have serious social-emotional health problems, no more than 3% of the students were reported to have a serious or severe problem in any of the other seven categories.

4. The percentage of students with serious problems in the basic skill area begins to diminish at fourth grade level. The smallest percentages of students with serious problems in reading, math, spelling, language arts, and work-study skills was at sixth grade level.

5. Kindergartners appeared to have more serious attendance problems (7%) than at any other grade level although 6th graders ran a close second with 6%.

6. The highest percentage of students with health problems came at the kindergarten level. Nineteen percent, for example, had serious social-emotional problems; the second highest percentage was at the 1st grade level with 10%. With the exception of chronic illness or disease, kindergartners equaled or exceeded the percentage of students with serious problems for every other grade level on the remaining six health items.

The results are all subject to various kinds of influences. The severity of some problems is related to maturation level. Kindergartners will naturally have more speech problems than older children. The hyperactivity of kindergartners may diminish as the children mature. Teachers view children in different ways and make different judgments based on experience, training, and the grade they teach. When kindergarten teachers say that their students have social-emotional problems they have different expectations of their children than do 6th grade teachers. What may be a social-emotional problem to kindergarten teachers may not be a problem to 6th grade teachers. Also, some of the changes between kindergarten and 6th grade may be due to better health services and school intervention.

The needs assessment survey demonstrated that the number one need in the Title I Target Area elementary schools was reading and that the number two need was math. The Minneapolis Public School system responded by greatly expanding its Title I reading program in the intermediate grades and by establishing a Title I math program in the elementary grades. The Parent Advisory Committee was instrumental in citing the need for the math program and supporting its development.

Title I Program Goals for 1972-73

The goals for the 1972-73 Title I Program in Minneapolis were directly related to the two problems identified by the needs assessment: reading and mathematics.

A general statement of goals for all Title I projects in operation in 1972-73 was included in the application for funds. (Specific objectives for each project may be found in individual project reports listed in the bibliography). The goals were:

Reading

A. Primary

Pupils enrolled in the Title I reading program will show gains in those basic skills being taught in the reading program.

B. Intermediate

Pupils enrolled in the Title I reading program will, on the average, show a 10% gain in reading comprehension over their previous year's score.

C. Secondary

Pupils enrolled in junior high school Title I reading programs will show a one month grade equivalent gain for each month enrolled in the reading program.

Mathematics

A. Primary

Pupils enrolled in the Title I math program will show gains in the computational and conceptual skills being taught.

B. Intermediate

Pupils enrolled in the Title I math program will show a 10% gain in computational and conceptual skills over their previous year's score.

C. Secondary

Pupils enrolled in the Title I junior high math program will show a one month gain for each month enrolled in the math program.

This report makes a distinction between Programs and Projects. The Title I Program in Minneapolis refers to the total, continuing effort to provide compensatory education to Title I children. Projects are relatively specific activities devoted to one aspect of the Title I program. e.g. The Mobile Learning Centers. In the next section evaluation results for a number of projects are presented. In a later section program evaluation is described.

Evaluation of Title I Projects

In this section a description of how individual Title I projects are evaluated is given. (The following section describes the evaluation of the Title I Program in Minneapolis; that is, the impact of all the individual projects taken as a whole.) First, some of the methods used for evaluation are outlined. Then, summaries of each of the project evaluations are presented.

A variety of methods is used to evaluate Title I projects in Minneapolis. Many people, inside and outside the school system, are involved. It is believed that a varied approach from many viewpoints can provide the most objective measure of the value of Title I projects.

For convenience, the evaluation effort may be thought of as consisting of four steps:

1. A description of the project
2. An evaluation of project operations
3. An evaluation of results
4. A review of the evaluations by people outside the school system

Each of these steps will be described.

Project Description

Each director of a Title I project in Minneapolis is responsible for describing his project in great detail. The Project Director completes a workbook by answering many questions about staffing, objectives, budget, pupil selection and many other things. This workbook is based on a detailed guide called Preparing Evaluation Reports: A Guide for Authors, prepared by the U. S. Office of Education and adopted by the State of Minnesota, Department of Education as the basis for Title I evaluation reports.

A sample table of contents from a typical Project Director's Report is shown on page 20.

Twelve project reports were completed in 1972-73. These reports are listed in the bibliography and are available to the public.

Generally, Project Director's reports do not contain the kinds of evaluation information found in the evaluation reports produced by the R & E Department. At times, however, Project Directors will conduct their own evaluations of certain aspects of their project.

Sample Project Director's Report

Contents

Page

The City of Minneapolis

Minneapolis Public Schools

The Target Area

Project School and Its Neighborhood

Historical Background

Objectives of the Project

Staffing

Planning and Training

Project Operations

The Budget

Parent-Community Involvement

The Results

Dissemination and Communications

Recommendations

Evaluation of Project Operations

Two Title I monitors, working out of the Office of Planning and Development and Federal Projects, assist Project Directors in interpreting and adhering to federal, state and local guidelines. In one sense, these monitors help to evaluate the processes taking place in each project. Monitors may also assist Project Directors in completing project descriptive reports.

A more formal process evaluation approach was tried in 1972-73. In cooperation with the State Department of Education, Minneapolis contracted CTB/McGraw-Hill to develop a process evaluation model. This model, if successful in providing useful information about project operations, might then be adopted by the State for Title I evaluation purposes.

This evaluation report has just been completed and its results are being reviewed[5] by state and local administrators.

The purpose of these approaches to process evaluation is to help Project Directors administer their projects and to provide a clear picture of project operations. This evaluation approach, together with the Project Director's descriptive report, also ensures against concluding that a "project" was "good" or "bad" when in fact the project originally planned never took place.

Evaluation of Results

Does the project meet its objectives? Do Title I children benefit from the project? Answering these questions is the job of the R and E Department of the Minneapolis Public Schools.

Generally, the R and E Department focuses on evaluating project results. (It also attempts to measure the combined effect of all projects; see section on Evaluation of the Impact of the Title I Program.) Separate evaluation studies are made of the larger projects, or of those projects where it seems possible to separate the impact of Title I from the impact of other activities.

Most project evaluations attempt to use the standardized achievement tests given to all pupils throughout the district each year. This approach

---

[5] CTB/McGraw-Hill Department of Programs and Services. Minneapolis Public Schools Title I Implementation Evaluation Model Final Report. Monterey, California, September 1973.

avoids "overtesting" the children. At times, however, the citywide tests are not appropriate for the project and other measures are used. An eclectic approach is used; whatever design is useful for measuring the project's results will be adopted.

Evaluators from outside the school district are also used. In 1972-73 the Educational Testing Service, an independent, non-profit research organization with a strong reputation in the field of tests and measurement, completed a three year, sibling control study of one of the larger Minneapolis Title I projects, the Pyramid Reading Program.[6]

A Review of Evaluations by People Outside the School System

Any evaluation of value must be objective and subject to review by critics who do not have an interest in the outcome of the evaluation.

In Minneapolis, every attempt is made to secure objective evaluations. The R and E Department which conducts most of the evaluations operates independently of the Title I program office. External evaluators are contracted to provide additional objectivity. However, both the R and E Department and the contractors depend on Title I funds, and no matter how objective their efforts some critics will dismiss their results.

An external review is necessary, independent of the school district and of Title I funds. Two such review are provided in Minneapolis.

The State of Minnesota Title I evaluation office requires that an independent auditor review the Title I evaluation effort. In 1972-73 three auditors were contracted to review the evaluations made of Minneapolis Title I projects. Evaluations made by district personnel and outside contractors were reviewed.

Perhaps the best test of the quality and usefulness of an evaluation is public scrutiny. All evaluation reports are provided to the Title I Parent Advisory Committee for review. These parents also meet with monitors and visit Title I projects.

All Title I evaluation reports, project directors' reports and auditors' reports are available, free, to the public. All reports published in 1972-73 are listed in the bibliography.

In the next section, summaries of a number of individual Title I projects in operation in 1972-73 are presented.

---

[6]Educational Testing Service. The Pyramids Reading Program Sibling Study Final Report. Evanston, Illinois, August 1973.

Evaluation Summaries of Individual Title I Projects

This section of the report presents the evaluation results for 12 Title I projects. Seven of the projects served students at specific locations, while four of the projects were centralized services that operate throughout the city in Title I schools. One project operated exclusively in the seven parochial schools that received Title I funds in 1972-73.

In order to familiarize the reader with each project, and quickly and concisely provide evaluation results, a four part format is used. It includes a project profile, an overview of the program, key evaluation findings, and a bibliography. Projects are listed alphabetically.

The project profile provides a brief outline of the project. It gives the names of the evaluator and the project administrator, and the address and telephone number of the project. It also tells what grade levels were served by the project, how many students and schools participated, how long the project was in operation, how many and what kind of staff the project had, the amount of Title I funds allocated to the project in 1972-73 and the cost per pupil. However, it should be pointed out that some of the projects received funding from sources other than Title I so the amount of Title I funds listed in the project profile should not be interpreted as the total budget in all instances. Similarly, the cost per pupil was derived by dividing the amount of Title I funds by the number of pupils, and is not necessarily an accurate reflection of some projects' total cost per pupil.

The goals and history of the project are summarized in the OVERVIEW. The KEY FINDINGS section of the project report reviews the evaluation results for 1972-73, and, in most cases, for previous years. The evaluation reports from which the key findings were derived are listed in a bibliography at the end of each project report. Readers interested in obtaining these reports should write to:

Research and Evaluation Department
Minneapolis Public Schools
807 N. E. Broadway
Minneapolis, MN 55413

PROJECT PROFILE

Evaluation by:	Lary Johnson, Research and Evaluation Department
Project Administrator:	Donald Turkington, Principal on Special Assignment
Project Location:	Administration Building 807 N. E. Broadway
Telephone Number:	(612) 348-6102
Grades Served:	K - 12
No. of Pupils Served:	7,841 Public 959 Parochial
No. of Schools Served:	33 Public 8 Parochial
No. of Years in Operation:	8
Staff:	Professional 3, Paraprofessional 411, Clerical 2
Title I Funds:	$1,073,290
Cost Per Pupil:	$101

OVERVIEW

Although teacher aides were initially employed by Minneapolis Public Schools in the summer of 1964, Title I ESEA funds were first used in the fall of 1965 to employ 200 aides in 21 elementary and 8 secondary schools. Since that first year, the Auxiliary Personnel Program has grown steadily and now employs more than 1,000 aides, one-third of whom are Title I funded.

The four major objectives of the Title I Auxiliary Personnel Program are: to relieve the teacher to work with individuals or small groups of Title I eligible children; to provide tutorial service to Title I pupils; to provide a liaison to the community; and to provide children with the opportunity to develop a positive relationship with adults in the school.

KEY FINDINGS

1965-1966 An analysis of how aides spent their time indicated 50% of the aides' time was spent on routine clerical duties, 24% of their time was spent supervising large groups of children, 22% was spent with individuals or small groups of children, and 4% was spent on other tasks. Eighty-five percent of the principals and teachers said the teacher aide program should be continued and 12% were not sure. Three percent did not respond.

1966-1967 An experimental study showed a direct relationship between the presence of teacher aides in kindergarten classrooms and the development of readiness skills in kindergarten children. Children with one or five teacher aides in their classroom gained significantly more on a total readiness score between pretest and posttest than did children who did not have aides in their classroom.

1970-1971 Results of a teacher aide role study indicated the functions of the classroom aide had changed substantially since the beginning of the program. Although clerical, technical, supervisory, and bridge-communication activities were seen as important functions, both aides and teachers in Title I schools emphasized classroom teacher aides should perform activities that involve contact with students in cognitive and affective areas.

Ninety-five percent of the teachers and aides agreed teachers spent more time with children because of teacher aides and schools are a better place for children because of teacher aides.

Teacher aides who participated in a training course, compared with aides who did not participate, showed a greater increase in knowledge and understanding of a special reading program and became more involved with the program in the classroom.

1971-1972 About two-thirds of the Title I aides in elementary schools indicated they spent 50% or more of their time working directly with children as individuals or in small groups. About two-thirds also said they spent less than 24% of their time on routine-clerical tasks.

Most of the Title I aides have shown an interest in improving their skills by taking in-service courses and completing college

credits. Developing in-service training opportunities has been a major objective of the auxiliary personnel program administrators.

Several special materials were developed by the auxiliary personnel staff in 1971-72: a 36-page manual for aides, revision of the career lattice outlining appropriate aide roles and functions for teacher, social work, media and counselor aides, an information leaflet called "Facts About School Aides," and a periodic newsletter.

1972-1973 A Title I aide orientation workshop was held in August 1972 to review Title I Guidelines and the role of the Title I monitor, to provide in-service training in basic skills curriculum and audio-visual materials, and to help the aides better understand educationally disadvantaged children. The reactions of the 250 participating aides to the orientation workshop were very favorable. Ninety-eight percent of the aides approved of the manner in which the workshop was operated. Almost all aides indicated they benefited "a lot" or "some" from most of the activities. Twenty-three of the 32 Title I schools were represented by aides in a subsequent evaluative and planning session to develop a program for the orientation workshop for the next year.

An in-depth program was initiated to train an aide orienter in each Title I school to help newly employed aides make a satisfactory employment adjustment. Each orienter was provided with information about Title I Guidelines, their school's program, civil service, benefits and training opportunities and other aspects of the aide program. Initial reactions of the aides were positive.

Special School District No. 1. Evaluation Title I Projects, Elementary and Secondary Education Act, 1965-66. Minneapolis: Minneapolis Public Schools

Special School District No. 1. Evaluation Title I Projects, Elementary and Secondary Education Act, 1966-67. Minneapolis: Minneapolis Public Schools

Johnson, L. R. The Role of the Elementary Classroom Teacher Aide in the Minneapolis Public Schools 1970-71. Minneapolis: Minneapolis Public Schools, 1971.

Johnson, L. R. Pyramid Reading Program for Teacher Aides, 1970-71. Minneapolis: Minneapolis Public Schools, 1971.

Johnson, L. R. Auxiliary Personnel in the Minneapolis Public Schools: A Profile. Minneapolis: Minneapolis Public Schools, September 1972.

Magnuson, Y. and Rinkenberger, D. Minneapolis Auxiliary Personnel Program 1971-72. Minneapolis: Minneapolis Public Schools, August 1972.

PROJECT PROFILE

Evaluation by:	Sara H. Clark, Research and Evaluation Department
Project Administrator:	Mary C. Kasbohm
Project Locations:	North Basic Skill Center 1306 Plymouth Avenue North South Basic Skill Center 2500 Park Avenue South
Telephone Numbers:	(612) 521-7694 (North) (612) 339-8839 (South)
Grades Served:	4 - 9
No. of Pupils Served:	594 Public 10 Parochial
No. of Schools Served:	23 Public 1 Parochial
No. of Years in Operation:	5
Staff:	Professional 4.5, Paraprofessional 31, Clerical 2
Title I Funds:	$129,987
Cost Per Pupil:	$215

OVERVIEW

Two Basic Skill Centers, one on the near North Side, the other on the South Side, were set up in 1968 to help inner city students improve their reading skills. The Centers are supported for the most part by the Minneapolis Public Schools although ESEA Title I funds provide for the teacher aides. The project has been in operation for five years.

The goals of the program include remediation of sub-skill weaknesses, achievement of functional reading levels, and raising the rate of reading growth of children in Target Area schools. Since 1970 the Centers have selected the most disabled readers in these schools.

Individualized instruction is provided for grades 4 - 9 using a multi-media approach which includes the Talking Typewriters, and other types of teaching machines, as well as related classroom experiences. Materials by the Centers' staff are used in conjunction with commercially produced programs.

KEY FINDINGS

July 1968: Centers opened for partial operation. The Sullivan Programmed Reading materials (Behavioral Research Laboratory) were used with enrichment programs developed by Center staff.

1968-69 School Year: Gains apparently favored the Experimental group, but generally children in both Experimental and Control groups were further behind at the end of the year. Vocabulary results favored the Control group. No control for regression. Stanford Primary Achievement Tests used.

Summer 1969: No control group, but attendance and Sullivan Books completed correlated significantly with Paragraph Meaning Achievement Test scores when pretest differences were controlled. Possible sampling bias with only 28% of students available for testing.

1969-70 School Year: Gains not high for either Experimental or Control groups. Vocabulary gains favored Control group. South Center gains significantly higher than North Center. Sullivan Placement Test found to be functioning inappropriately.

Summer 1970: No testing. Average attendance only 17 days. The modal student entered the program at the introductory level; for all practical purposes these children were non-readers.

1970-1971: Originally, intact classrooms had attended the Centers. Beginning this year, individual children, most in need of help were selected. Tests switched from Stanford Achievement--used since 1968--to Gates-MacGinitie. In November 1970 a basic change in the instructional program was initiated.

During the first four months, Center students made about 5 months growth in Comprehension and Vocabulary. No control group, but learning rate was better than expected for "average" students, and substantially better than expected for these severely deficient readers.

Individually administered tests yielded results which were similar to results from group testing.

Progress in both Centers generally above expectations.

Pre-post test results were obtained from 460 of the 701 students

who received services from the Centers. Their average length of attendance at the Basic Skill Centers was six months. These students made substantial gains in both reading comprehension and vocabulary. About seven out of ten children in this group made gains of one year or more during the six month time span. Learning rate of Centers' students was better than expected for these educationally disadvantaged children who were two to three years below grade level.

1971-72: Services were provided for 675 students in this fourth year of operation. Two-thirds of the 501 students with complete testing data made gains equal to or greater than expected for average children in the grade levels at which they were working. According to questionnaire responses, the Centers were viewed very favorably by parents, home school teachers, and the participating students.

Continuing development of a Basic Skill Centers Reading Program this year was based on a philosophy that effective word attack in reading consists of simultaneous utilization of context clues and recognition of the largest usable visual patterns in words.

1972-73: Test results were obtained for 384 of the 604 students who attended the Centers. The grade equivalent gains were well above what would have been expected for average children working at the reading levels of the Gates-MacGinitie (Comprehension) and Stanford Primary Achievement (Word Study Skills) Tests which were the measuring instruments. About 70% of the students made grade equivalent gains on the Gates tests over expectation for the pre-post span of six months. Two-thirds of the pupils made such gains on the Stanford tests.

In December half the Talking Typewriters were removed. Staff decided on somewhat different use of materials between January 8th and the close of the report period. The North Center made greater use of the new staff-developed Basic Skill Centers Reading Program. The South Center made greater use of commercially produced materials in addition to the staff-produced lessons.

Clark, S. P. Basic Skill Centers Evaluation, September 1969 - June 1971. Minneapolis: Minneapolis Public Schools, 1971.

Clark, S. H. Basic Skill Centers of Minneapolis, 1971-72. Minneapolis: Minneapolis Public Schools, December 1972.

Clark, S. H. Basic Skill Centers of Minneapolis, 1972-73: An Evaluation. Minneapolis: Minneapolis Public Schools, January 1974.

BRYANT JUNIOR HIGH SCHOOL CONCENTRATED EDUCATION CENTER

PROJECT PROFILE

Evaluation by:	Tom McCormick, Research and Evaluation Department
Project Administrator:	Melvin West, Principal
Project Location:	Bryant Junior High School 3737 Third Avenue South
Telephone Number:	(612) 822-3161
Grades Served:	6 - 9
No. of Pupils Served:	450
No. of Schools Served:	1
No. of Years in Operation:	4
Staff:	Professional 10, Paraprofessional 17, Clerical 3
Title I Funds	$167,913
Cost Per Pupil:	$373

OVERVIEW

A Concentrated Education Center (CEC) was created at Bryant Junior High School with Title I and local funds in 1969 to provide remedial basic skills instruction for economically and educationally disadvantaged students. In 1972-73, 450 of the 925 students enrolled at the school were eligible to receive Title I program benefits.

Title I funds have been used to hire additional Special Learning and Behavior Problems (SLBP) teachers, tutors and teacher aides, and to develop special support programs such as Guided Group Interaction (GGI) which provides disenchanted students with the opportunity to discuss problems with a staff adviser and a slightly older student adviser.

KEY FINDINGS

1972-1973

The Gates-MacGinitie Reading Vocabulary and Comprehension Tests and the Minneapolis Arithmetic Computation Test were administered to students in mid-September and mid-May. Thus, an eight month grade equivalent gain might be expected from the average, or typical, student. Only the pre- and posttest scores of seventh and eighth graders who attended Bryant the entire year were analyzed. Similar test data were not available for sixth or ninth graders.

The Title I eligible seventh graders did not do particularly well on the vocabulary test. As a group, they made a five month gain on Survey D of the Gates-MacGinitie Vocabulary Test. However, the Title I eighth graders gained six months on the more difficult Survey E of the same test. Students in both grades made excellent progress on the reading comprehension test. The Title I seventh graders gained 1.2 years and the eighth graders, 1.7 years.

Students made less than average gains on the Minneapolis Arithmetic Computation Test. While national norms do not exist to measure student progress on this test, Bryant student test results were compared to citywide percentile norms. Both the Title I seventh and eighth graders gained about six raw score points on the 33-item test. However, in both grades the students' percentile standings declined compared with other Minneapolis students.

McCormick, T. An Analysis of Bryant Junior High School Student Reading and Math Achievement, 1972-73. Minneapolis: Minneapolis Public Schools, November 1973.

PROJECT PROFILE

Evaluation by:	Robert Bergeth, Research and Evaluation Department
Project Administrator:	Thomas Kitto
Project Location:	Bryant YES Center 2633 Fourth Avenue South
Telephone Number:	(612) 338-5839
Grades Served:	7 - 9
No. of Pupils Served:	50
No. of Schools Served:	1
No. of Years in Operation:	5
Staff:	Professional 10, Paraprofessional 9, Clerical 2
Title I Funds:	$108,131
Cost Per Pupil:	$2,163

OVERVIEW

The Bryant Youth Educational Support Center (YES) was established in 1968 through the combined efforts of the school, community and industry to meet the needs of Bryant Junior High School students who were socially maladjusted and/or academically underachieving. The Center is located in an area with many socio-economic problems. Almost all of the students are from families receiving Aid to Families with Dependent Children (AFDC).

Generally, the students referred to the Center are two to four years behind in basic skills achievement and manifest severe anti-social behavior. The primary objectives of the Center staff are to provide basic skills remedial instruction, modify inappropriate behavior and explore long-term goals.

Conventional grades are not used. However, behaviorial objectives, based on demonstrated academic performance are written for each student. Students who achieve their objectives receive course credit; students who don't try receive no credit.

KEY FINDINGS

1971-1972 Forty-seven of the 50 students enrolled at the Center during the year took the Gates-MacGinitie Test in Reading Comprehension and Vocabulary, Survey D and the Stanford Achievement Test in Word Meaning, Paragraph Meaning, Arithmetic Computation, Arithmetic Concepts, and Arithmetic Applications in mid-October 1971 and mid-May 1972.

The students made excellent progress in reading. They made an average grade equivalent gain of 1.4 on the Gates-MacGinitie Vocabulary Test and 1.5 on the Word Meaning Test over the seven month period. Only three of the 47 students scored below seven months on the Vocabulary Test and only six had grade equivalent scores of less than seven months on the Word Meaning Test. The students made an average grade equivalent gain of 1.2 on the Gates-MacGinitie Comprehension Test and 1.5 on the Achievement Paragraph Meaning Test. Again, only a few students made less than the expected seven month gain on both tests.

The students also made good if not excellent progress in Arithmetic Computation Skills, Understanding Arithmetic Concepts and Arithmetic Application. In all three areas, the average student made a grade equivalent gain of 1.0.

1972-1973 Evaluation results show that the students are continuing to make excellent gains. Thirty-nine students were tested with the same achievement tests used in 1971-72. There was a six-month period between the pretest and the posttest.

The students made average gains in vocabulary of one and a half months and two months on the Word Meaning Test for each month they were in the program. In reading comprehension, the students made 1.8 months gain for each month in the program and 2.2 months on the Paragraph Meaning Test. Results for Arithmetic Computation were 1.8 months gain for each month in the program; 1.8 for Arithmetic Concepts; and 2.3 months for Arithmetic Application.

Bergeth, R. L. An Analysis of the Bryant YES Center Student Reading and Math Growth 1971-1972. Minneapolis: Minneapolis Public Schools, August 1972.

Bergeth, R. L. Bryant YES Center Student Reading and Math Growth, 1972-73. Minneapolis: Minneapolis Public Schools, October 1973.

PROJECT PROFILE

Evaluation by:	Sara H. Clark, Research and Evaluation Department
Project Administrator:	Adeline O. Marty
Project Location:	Phillips Junior High School 2218 Thirteenth Avenue South
Telephone Number:	(612) 335-3158, ext. 22
Grades Served:	7 - 9
No. of Pupils Served:	429
No. of Schools Served:	1
No. of Years in Operation:	4
Staff:	Professional 2.7, Paraprofessional 3.5, Clerical 0
Title I Funds:	$46,743
Cost Per Pupil:	$109

OVERVIEW

This program started in 1969-70 when Job Corps reading materials were initially used by 350 pupils in 7th and 8th grade English classes at Phillips Junior High. This systematized program of materials supplements the regular curriculum and is used about three periods a week in each of the participating classes. The major goal of the program is to bring the reading level of underachievers closer to grade level. Gates-MacGinitie Vocabulary and Comprehension tests are used as standardized measures of achievement.

In 1970-71 another Job Corps program, Language and Study Skills (LASS), was added in the 8th and 9th grades for those pupils with a reading level of at least the fifth month of the fifth grade. This program, using film strips, tapes, and worksheets, also supplements the regular curriculum about three days a week. The Iowa Basic Language Skills Tests and the Gates-MacGinitie Reading Tests are used for evaluation.

KEY FINDINGS

1969-1971 Formal evaluations were not conducted. According to tests given in the classrooms and teacher judgment, the program was a worthwhile addition to the regular curriculum.

1971-1972 Despite a highly transient population, gain scores were obtained for 60% of the 305 students involved. Sixty percent of those students made grade equivalent gains in comprehension as great or greater than might have been expected for the length of instruction. Forty-three percent made similar gains on vocabulary tests.

1972-1973 Greater gains were again made on comprehension tests than on vocabulary tests. The 8th and 9th graders in the Language and Study Skills (LASS) program showed expected gains in comprehension, but were below average in vocabulary gains. The students, primarily from the 7th and 8th grades, who made use of the Job Corps Graded Reading Program, showed greater gains than they had the year before, especially on the comprehension tests. Gain scores were obtained for 60% of the 429 students who were assigned to the program at any time during the school year.

Clark, S. H., and Marty, A. O. Job Corps Reading Program, Phillips Junior High School, Minneapolis, 1971-72. Minneapolis: Minneapolis Public Schools, January 1973.

Clark, S. H. English Basic Skills, Phillips Junior High School, Minneapolis, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

PROJECT PROFILE

Evaluation by:	Lary Johnson, Research and Evaluation Department
Project Administrator:	Donald Ostrum, Mathematics Resource Teacher
Project Location:	Hall Elementary School 1601 Aldrich Avenue North
Telephone Number:	(612) 521-2231
Grades Served:	2 - 6
No. of Pupils Served:	250
No. of Schools Served:	1
No. of Years in Operation:	4
Staff:	Professional 1, Paraprofessional 5, Clerical 0
Title I Funds:	$39,900
Cost Per Pupil:	$160

OVERVIEW

The Individually Prescribed Instruction (IPI) mathematics project has been in operation at Hall Elementary School for four years. The project has been entirely funded from Title I of the Elementary and Secondary Education Act.

IPI is an instructional system based on the premise that each child should progress at his own rate. Development of the system and materials began in the early sixties at the Learning Research and Development Center at the University of Pittsburgh.

The purpose of the project is to increase the basic mathematics skills of educationally disadvantaged children by providing a highly structured and carefully sequenced system of individualized instruction. Beginning at a level determined by a pretest, each student progresses at his own rate as he masters successive skills.

KEY FINDINGS

1969-1970 Although nearly all of the children in the IPI project were achieving well below expected levels in math, first year evaluation results showed that students made gains on standardized mathematics tests that were equal to gains made by average students on the test publisher's norms. When compared with students who were also below average in mathematics achievement, the Hall school students made better than expected gains. IPI students made somewhat greater gains in mathematics than did students in three comparable Title I schools in Minneapolis who were not on the IPI program.

Reactions of teachers and teacher aides to the IPI project were favorable. Student preferences for mathematics rose. In grades 2 and 3, math was preferred over all other subjects including gym and art, two subjects which initially had higher preference.

1970-1971 Hall students continued to make progress in the second year. On a standardized mathematics achievement test, students in grades 4, 5, and 6 gained 9, 10, and 7 months, respectively, during an eight-month period from October to May. Compared with the publisher's norms, the fourth and fifth graders scored eleven percentile points higher on the posttest than on the pretest.

Reactions to the IPI project by both staff and students continued to be favorable. Students rated mathematics as one of their favorite subjects, while teachers preferred IPI over more traditional math programs.

1971-1972 Hall students continued to make progress during the third year. Students in grades three and four (those students who had most of their formal math instruction with IPI) had higher percentile ranks than students in grades five and six (those students who had not had most of their formal math instruction with IPI). In May 1972, the percentile ranks on the ITBS Modern Math Supplement were 28, 34, 41, and 56 for grades 6, 5, 4, and 3, respectively.

A trend, where the percentile rank at each grade increased in each successive year, appeared. Compared with May 1971, the May 1972 ranks at grades 6, 5, 4, and 3 were higher by 7, 6, 5, and 10 percentile points, respectively.

Fourth and fifth grade students at Hall tended to have a more positive attitude toward math than did students at two comparison schools.

1972-1973 After four years of IPI at Hall school, it is apparent that student achievement as measured by the ITBS Modern Math Supplement has improved substantially. Within each grade, the publisher's percentile for the end-of-the-year mean raw score has increased with each year of the project. The third grade percentile increased from 46 to 60 and the fourth grade percentile increased from 36 to 62 between May 1971 and May 1972. Between May 1970 and May 1973 the fifth grade percentile increased from 22 to 46 and the sixth grade percentile increased from 24 to 36.

Contrary to children in many educationally disadvantaged areas, Hall students did not compare less favorably with publisher norms as they became older. The IPI students held near their third grade percentile as they progressed through school. For example, the mean raw score for May 1971 third graders was at the 46th percentile, the May 1972 fourth graders were at the 41st percentile, and the May 1973 fifth graders were at the 46th percentile.

Hestwood, D. First Year Evaluation, IPI Mathematics Project, Hall School 1969-70. Minneapolis: Minneapolis Public Schools, 1970.

Johnson, L. and Ostrum, D. R. Second Year Evaluation; IPI Mathematics Project, Hall School, 1970-71. Minneapolis: Minneapolis Public Schools, 1971.

Johnson, L. Minneapolis IPI Mathematics Project 1971-72: Third Year Evaluation. Minneapolis: Minneapolis Public Schools, November 1972.

Johnson, L. The Fourth Year of IPI Mathematics at Minneapolis Hall School, 1972-73. Minneapolis: Minneapolis Public Schools, July 1973.

PROJECT PROFILE

Evaluation by:	Robert Bergeth, Research and Evaluation Department
Project Administrator:	Duane Ramberg
Project Location:	Lincoln Learning Center 1225 Plymouth Avenue North
Telephone Number:	(612) 521-4741
Grades Served:	7 - 9
No. of Pupils Served:	60
No. of Schools Served:	3
No. of Years in Operation:	8
Staff:	Professional 7.5, Paraprofessional 2, Clerical 2
Title I Funds:	$89,402
Cost Per Pupil:	$1,490

OVERVIEW

The Lincoln Learning Center is a school for junior high age boys who are having difficulty adjusting to typical classrooms. All students are one or more years below grade level in reading, math or both.

The Center staff emphasizes basic skills instruction. Students are rewarded for achievement by a weekly training allowance. Each student is given daily objectives in each of his classes. The degree to which he accomplishes his classroom objectives determines the amount of money the student earns. A student who accomplishes his daily objectives may earn 30¢ per class each day, up to a maximum of $9.00 weekly.

A unique feature of the Center is the heavy involvement of business and industry. One local company has contributed considerable financial support as well as material items and technical assistance.

KEY FINDINGS

1972-1973 The Metropolitan Achievement Tests, Elementary Battery, were administered to 52 students when they entered the Center and when they left. The average student was enrolled for six months. Thus, a six month grade equivalent gain might be expected if the student performed typically.

Students made good progress in word knowledge and reading achievement comprehension. They gained six months on the Word Knowledge Test and eight months on the Reading Test. On the Spelling and Arithmetic Computation Tests, the students made a grade equivalent gain of .5. However, on the Word Discrimination and Arithmetic Problem Solving Tests, the students gained only three months on the average.

Bergeth, R. L. An Examination of Lincoln Learning Center Student Progress in Basic Skills, 1972-73. Minneapolis: Minneapolis Public Schools, Oct. 1973

Ramberg, D. and McCormick, T. Lincoln Learning Center Project Director's Report, 1972-73. Minneapolis: Minneapolis Public Schools, Oct. 1973

MATHEMATICS BASIC SKILLS DEVELOPMENT PROJECT

PROJECT PROFILE

Evaluation by:	Sara H. Clark, Research and Evaluation Department
Project Leaders:	Diana L. Hestwood Earl E. Orf
Project Office:	Rm. 463 2908 Colfax Avenue South
Telephone Number:	(612) 348-4052
Grades Served:	7 - 12
No. of Pupils Served:	2,090 Public 38 Parochial
No. of Schools Served:	14 Public 1 Parochial
No. of Years in Operation:	3
Staff:	Professional 1.1, Paraprofessional 0, Clerical 1.0
Title I Funds:	$42,135
Cost Per Pupil:	$20

OVERVIEW

The objectives of this project, which began in 1970, were to develop and use an instructional system which would enable poorly motivated, low achieving junior-high students to learn basic mathematical concepts and skills. Over 230 precise behavioral objectives covered computational skills in whole numbers, fractions, decimals, percents and measurements. Mathematics teachers in the Target Area junior high schools participated in all phases of the project. They selected and defined objectives, wrote instructional booklets and supplementary materials, and finally tried and tested the units with their students. An instructional unit was to be considered successful if over 50% of the students who studied it achieved mastery (85% or more correct) on a criterion-referenced post-test. Title I Guidelines require that at least 50% of the pupils attain the project's objectives in order to be funded again. The figure of 85% was somewhat arbitrary but was selected since it had been widely used in the field of criterion-referenced testing.

KEY FINDINGS

1970-71 By the end of the school year, three of the newly developed units had been used in classrooms with complete results from 172, 36, and 13 students. The evaluation of the first year of the project's operation concluded, "All test results were positive and at least indicate an exciting potential for the development of materials to support the mathematics curriculum."

1971-72 In this second year of the project, 1,274 individual booklets (10 different units) were used by 586 different students who were mostly in the 7th and 8th grades. Booklets were assigned to those who were deficient in certain basic mathematical skills. Mastery was achieved on eight of the ten instructional units evaluated by from 55% to 74% of the students. Units dealing with fractions and with the division of whole numbers were more frequently assigned than were those dealing with decimals, percent and measurement.

Writing teams of mathematics teachers made use of test item analyses not only for the revision of the two weaker units and tests, but also for minor revisions in the successful materials.

1972-73 More than 2,100 students completed 6,937 booklets in 11 instructional units. At least 50 percent of the students participating in each unit achieved mastery (scored 85 percent or better on a unit post-test). The percentage of students achieving mastery ranged from 52 percent on the unit dealing with Area Measurement to 85 percent on the unit dealing with Division of Fractions. All of the students had been below the mastery level on diagnostic tests of these mathematics basic skills.

Four additional units were given preliminary trials and received item analyses. Probable revision was indicated for two of the four units.

The project was expanded to include Target Area senior high schools as well as other inner city school locations. Thirty-eight teachers made use of the units developed by the project.

Educational Management Services, Inc. An Evaluation of the Minneapolis Mathematics Basic Skills Development Project. Minneapolis: Educational Management Services Inc., 1971.

Clark, S. H.; Hestwood, D. and Orf, E. Mathematics Basic Skills Development Project 1971-72. Minneapolis: Minneapolis Public Schools, April 1973.

Clark, S. H. Mathematics Basic Skills Development Project, Minneapolis, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

MATH PROGRAM (ELEMENTARY)

PROJECT PROFILE

Evaluation by:	Sara H. Clark, Research and Evaluation Department
Project Leaders:	Elmer A. Koch, Jr., Administrator/Consultant Anita Steinbicker, Coordinating Resource Teacher
Project Office:	Lehmann Center 1006 West Lake Street
Telephone Number:	(612) 348-4067
Grades Served:	K - 3
No. of Pupils Served:	1,024 (996 Public; 28 Parochial)
No. of Schools Served:	25 Public 8 Parochial
No. of Years in Operation:	1
Staff:	Professional 3, Paraprofessional 0, Clerical 1
Title I Funds:	$75,000
Cost Per Pupil:	$73

OVERVIEW

The goal of this developmental project, as stated in the summer of 1972, was to help Title I primary children improve their understanding of mathematical concepts and basic math skills to enable them to function at grade level. In order to achieve that goal, the project aimed to improve the teaching of mathematics at the primary level in Title I schools, with the hopes that the students of those teachers would then attain certain specified levels of mastery on the Houghton-Mifflin Placement tests. The project was initiated at the request of staff, principals, and parent advisory committees (from both public and parochial Title I schools) who also assisted in project planning.

KEY FINDINGS

Spring and Summer 1972

Three workshops, each consisting of ten three-hour training sessions, were held in which a total of 163 teachers participated. These workshops, and further planning, were financed through reallocation of Title I funds from the previous year.

1972-73

Two more training sequences of ten sessions each were held. They were attended by a total of 93 teachers. In addition, 17 mini-inservice sessions of two hours each were given on six different subjects in which teachers had requested help. A separate ten-hour course was attended by 33 teacher aides.

The project staff developed and produced 30 different sets of instructional materials of which over 4,000 copies were distributed. Evaluations received from teachers showed a high acceptance and use of these materials. Over 400 demonstration lessons on the use of these materials and on subjects which the teachers had requested help were were given in the schools. On a 1-10 scale, the average teacher evaluation of these lessons was 9.4, a highly favorable response.

Test results were obtained on 1024 Title I students whose teachers had received services from the project and from 193 Title I students whose teachers had not received such services. Neither group attained the specified mastery levels, nor were there consistent differences between the two groups of students in the percentage which had achieved mastery.

Clark, S. H. Title I Math Program (Elementary) in Minneapolis, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

MINNEAPOLIS PUBLIC SCHOOLS - PAROCHIAL SCHOOLS TITLE I COOPERATIVE PROJECT

PROJECT PROFILE

Evaluation by:	Robert H. Bruininks, University of Minnesota Nancy J. Short, Minneapolis Public Schools
Project Administrator:	School Principals
Project Location:	Seven Parochial Schools
Telephone Number:	(612) 224-1395
Grades Served:	1 - 8
No. of Pupils Served:	836
No. of Schools Served:	7
No. of Years in Operation:	1
Staff:	Professional varies, Paraprofessional varies, Clerical varies
Title I Funds:	$97,620
Cost Per Pupil:	$117

OVERVIEW

Seven parochial schools, Ascension, Basilica, Holy Cross, Holy Rosary, St. Anne, St. Cyril and St. Stephen, received Title I funds in 1972-1973. About twenty-five percent of the students enrolled at the schools were eligible to receive Title I program benefits. The parochial schools' Title I programs focused on remedial math and reading instruction primarily through the use of teacher aides.

The Minneapolis Public Schools - Parochial Schools Title I Cooperative Project was developed in response to requests from parochial school personnel to provide special education services for eligible Title I children in the areas of speech and language, English language tutoring, psychological assessment, and academic assessment. Since the project was not implemented until March 1973, the scope of the project goals had to be narrowed considerably. The primary goal of the project was to identify and assess those eligible Title I children who needed special education services, and to determine the nature and extent of services required to meet their educational needs.

KEY FINDINGS

1973 Teachers assessed 1500 students and identified 638 of them (40 percent) as eligible to participate in a Title I program. Eighty-seven percent (N=556) of these eligible students were further identified as needing one or more special education services and referred to Title I support service staff members, who determined the appropriateness of the referrals through testing and subjective observations.

These staff members were able to give direct service to all the students referred for speech and English language tutoring, and found the referrals to be 91 percent appropriate. The referrals for psychological services were determined to be 97 percent correct, but the appropriateness of referrals for academic services was considerably lower (76 percent appropriate). These figures should be interpreted cautiously, however, since staff members were only able to serve 25 percent of the students referred for psychological services and 14 percent of the students referred for academic services.

Responses of teachers in the participating schools to the services provided by the Title I Cooperative Project were generally favorable. Most of the teachers felt that with the support of such services, it would be possible to accomodate many of the children identified as needing help within the regular classroom.

McCormick, T. Parochial Schools Project Director's Report 1972-73. Minneapolis: Minneapolis Public Schools, in press.

Short, N. J., and Bruininks, R. H. Evaluation of the Minneapolis Public Schools - Parochial Schools Title I Cooperative Program, Spring, 1973. Minneapolis: Author, no date.

MOBILE LEARNING CENTERS

PROJECT PROFILE

Evaluation by:	Sara H. Clark, Research and Evaluation Department
Project Administrator:	Mary C. Kasbohm
Project Locations:	Bryant Junior High School 3737 Third Avenue South North High School 1719 Fremont Avenue North
Telephone Numbers:	(612) 822-9789 (Bryant) (612) 529-2239 (North)
Grades Served:	7 - 12
No. of Pupils Served:	331
No. of Schools Served:	2
No. of Years in Operation:	3
Staff:	Professional 2, Paraprofessional 2, Clerical 0
Title I Funds:	$49,864
Cost Per Pupil:	$151

OVERVIEW

Self-teaching machines housed in trailer-classrooms are used to help Minneapolis secondary students improve their reading skills. The project features the use of TV-like teaching machines and educational materials developed by Dorsett Educational Systems. The machines -- 32 in all -- are housed in two large trailers that can be moved from school to school. A gain of one month or more in grade equivalents (using Gates-MacGinitie tests) for each month of attendance at the Centers by at least 50% of the students was the specific objective of the project.

Although students operate the machines and test their own progress at the end of each lesson, assistance is available from the certified reading teacher and the aide who staff each trailer. The teacher also prescribes the course of instruction for each student.

KEY FINDINGS

1970-1971 Positive and definite gains in vocabulary and comprehension were made by the 240 students for whom gain scores were obtained. Their rate of progress was from two to six times that which would have been expected based on their previous achievement. All of them had been one or more years below grade level in reading skills before their selection for the program.

1971-1972 In the second year of operation the program was again successful. Eighty percent of the students tested made grade equivalent gains on comprehension over those expected for length of instruction. Sixty-four percent made such gains on vocabulary tests. Gates-MacGinitie tests were used again.

1972-1973 Pre-post test results were obtained for 218 students. Over 85% of these pupils made grade equivalent gains in comprehension over expectation for the length of enrollment in the program. The median grade equivalent gain was 1.5 although the students had been on roll for less than half the school year.

Clark, S. P. Evaluation of the Mobile Learning Centers in Minneapolis Secondary Schools, 1970-71. Minneapolis: Minneapolis Public Schools, 1972.

Clark, S. H. Mobile Learning Centers of Minneapolis 1971-72. Minneapolis: Minneapolis Public Schools, January 1973.

Clark, S. H. Mobile Learning Centers in Minneapolis Secondary Schools: An Evaluation, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

PROJECT PROFILE

Evaluation by:	Daniel P. Norton, Educational Testing Service
Project Administrator:	Area Superintendents (However, readers interested in program information should contact Mitchell Trockman at the telephone number and address listed below)
Project Office:	Lehmann Center 1006 West Lake Street
Telephone Number	(612) 348-4062
Grades Served:	K - 6
No. of Pupils Served:	8,600 (8,200 Public; 400 Parochial)
No. of Schools Served:	25 Public 7 Parochial
No. of Years in Operation:	6
Staff:	Professional 23, Paraprofessional 0, Clerical 8
Title I Funds:	$427,854
Cost Per Pupil:	$50

OVERVIEW

The Pyramids Reading Program (now called the Title I Reading Program) was begun in the 1967 and 1968 school year in response to a need for a unified reading program in Minneapolis Title I schools. Teachers selected one basal reading series to replace 22 different systems for teaching reading then operating in 20 Title I schools. An in-service training course was also developed to help teachers with reading instruction. Initially the reading program was aimed at primary grade elementary students but in January 1972 it was expanded to include intermediate grade Title I students.

The Instructional Materials Center (IMC) is a support component of the reading program established in 1969 to produce reading materials. During its first year of operation, the IMC provided materials to about 240 teachers in Title I schools. In 1972-73 more than 530 teachers used IMC-produced materials.

The Combine Component, another facet of the Title I Reading Program, trains selected classroom teachers (Combine interns) for leadership roles in the teaching of reading. This training is accomplished during the school day in Title I classrooms.

KEY FINDINGS

1971 The records for all 1287 kindergarten pupils participating in the Title I Reading Program in 1969-70 were examined to determine which had older brothers and sisters who would have been enrolled in first, second or third grade during the same school year. After further determining which children had Metropolitan Reading Readiness (Form B) scores from fall, first grade citywide test administrations, a core group of 343 kindergarten children and 432 older siblings was identified. Five hundred fourteen other kindergarten pupils without siblings but with first-grade test scores were also included in the study.

Analysis of Metropolitan Reading Readiness test scores revealed that older siblings did less well at entry to first grade than did the Title I Program children. The difference was in part accounted for by changes in the age at which pupils were admitted to school (older fourth-grade siblings were able to enter school two months earlier than their younger brothers and sisters). The test score difference between the two groups of students closely paralleled trends in readiness scores for the city as a whole.

1972 Results of the Bond-Balow-Hoyt Word Recognition Test, which is administered to Minneapolis second-graders as part of the citywide testing program, were gathered for the Title I Reading Program participants, who were second-graders in 1971-72, and their older siblings in third, fourth and fifth grade. As was the case for the city as a whole, the 1971-72 second graders had higher test scores than the older students. Various analyses performed on the data, nowever, did not indicate that the higher test scores were the direct result of participation in the reading program.

1973 The original group of 1969-70 kindergarten students participating in the Title I Reading Program were third-graders in 1972-73. Results of the Gates-MacGinitie Reading Comprehension Test, which is administered citywide, were gathered for these students and their brothers and sisters in fourth, fifth and sixth grade. As in the two previous years of this study, the former kindergarten students achieved at a higher level than did their older siblings.

Again, as in the previous years, it could not be concluded that the higher test scores were a direct result of participation in the Title I Reading Program. This three-year study indicates no important evidence of impact of the Title I Reading Program on first, second, or third grade citywide test scores. This analysis is consistent with the judgment of program personnel that the effectiveness of the program could not fairly or properly be evaluated over less than four years. However, the evidence that has been accumulated strongly indicates that pupil achievement outcomes of the project would probably not be found even if citywide test scores were studied for additional years. This is not to say that the program was without value. On the contrary, the program was initiated with many goals in mind, one of which was to achieve consistency in the Minneapolis reading program. This, and other goals, appear to have been amply met.

Norton, D. P. Pyramids Reading Program Sibling Study; A Progress Report. Evanston: Educational Testing Service, 1971.

Norton, D. P. The Pyramids Reading Program Sibling Study; A Second Year Progress Report. Evanston: Educational Testing Service, 1972.

Norton, D. P. Pyramids Reading Program Sibling Study; Final Report. Evanston: Educational Testing Service, 1973.

This section has presented evaluation results for a number of individual Title I projects. What impact have all these projects--taken as a whole--had on the children in the Target Schools? In the next section we consider this question.

Evaluation of the Impact of the Title I Program

This section presents evidence on the overall impact of the Minneapolis Title I Program.

Four approaches to measurement of Title I impact were used by three separate, and relatively independent departments or agencies.

1. The Research and Evaluation Department (R and E) of the Minneapolis Schools analyzed trends of citywide standardized test scores in basic skills for schools which had been designated as Title I schools since 1965.

2. The Department of Guidance and Assessment Services of the Minneapolis Schools compared all Title I schools with all schools for 1970-71 through 1972-73 on citywide test scores.

3. The R and E Department analyzed reading and math progress of a sample of Title I intermediate grade pupils for 1969-1972.

4. The Educational Testing Service (ETS) conducted a longitudinal, sibling control study of the impact of one of the major Title I projects, the Title I Pyramid Reading Program.

Each of these approaches yielded unique information about Title I program effectiveness. These approaches will be discussed separately and then an attempt will be made to reach a conclusion about the meaning of this information.

Research and Evaluation Department Trend Analysis of Test Results Since 1965

The R and E Department is an independent unit of the school district. Although Title I evaluation personnel are paid with Title I funds, they report to the R and E director and not to the Director of Federal Programs. Although the two departments maintain good working relationships they are, nevertheless, independent and Title I evaluators have been able to work without pressure from program administrators.

Thirty-four Minneapolis Elementary schools have been designated as Title I schools at one time or another since Title I funding began in 1965.

Five of these schools closed and four other schools were removed from the eligibility list because of population changes.

In 1972, twenty-five elementary schools were designated as Title I schools; two of these schools were eligible to receive Title I funds for the first time.

In order to measure the overall impact of the Title I program it seemed reasonable to look at the progress of pupils in those schools which had received Title I assistance over a period of years. Fourteen schools were identified as having been designated as Title I schools each year for the eight year period 1965-66 to 1972-73. These fourteen schools were: Bethune (Grant), Clinton, Corcoran, Greeley, Hall, Harrison, Hawthorne, Hay, Irving, Madison, Mann, Seward, Webster, and Willard. (Table 1 on page 6 shows Title I schools for each year since 1965.)

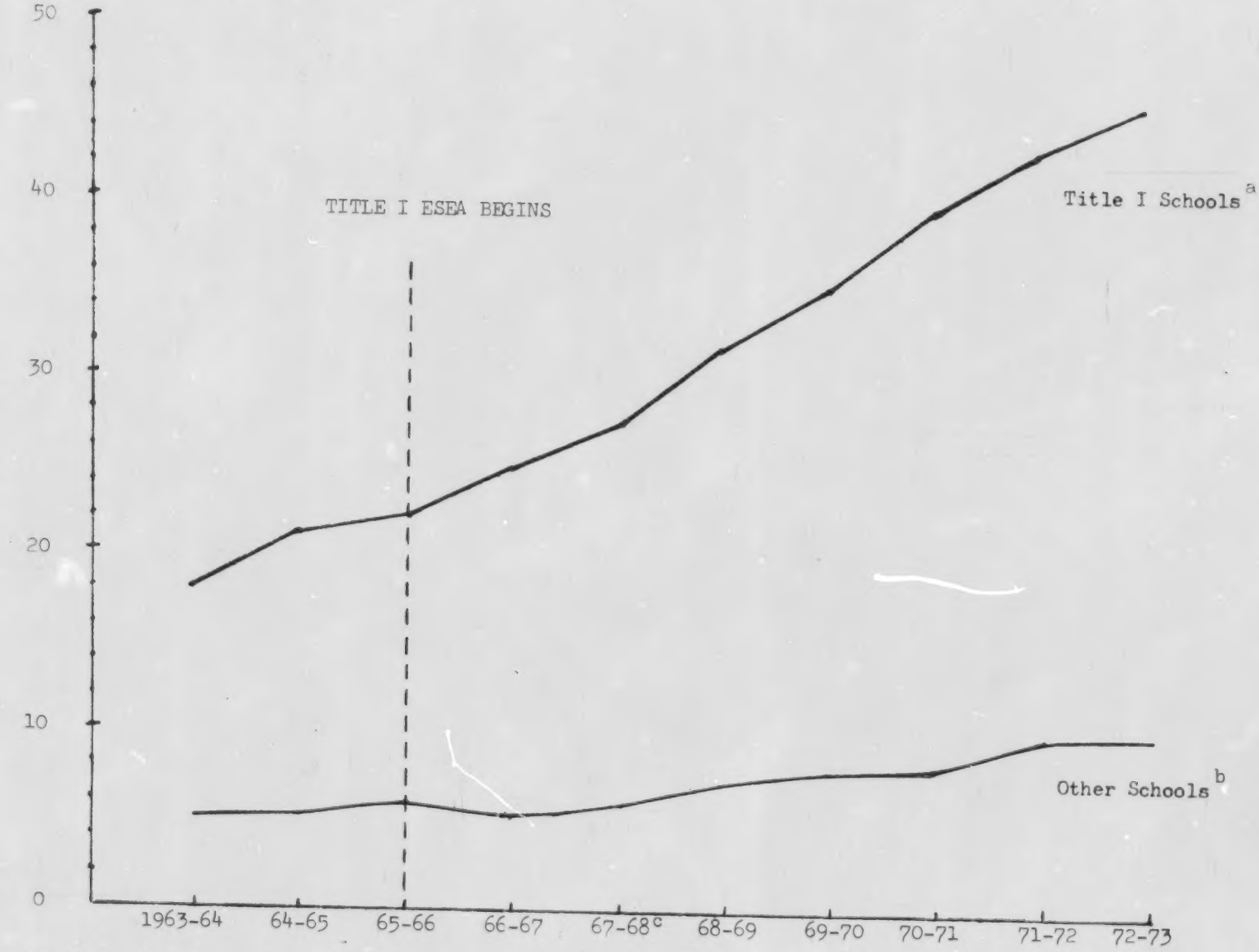
Although all Title I Projects did not focus on teaching basic reading and writing skills--particularly in the early years of federal funding--it seemed reasonable to expect that gains in basic skills would occur in these schools over the years, since some projects did emphasize basic skills as early as 1965.

Before giving evidence on the achievement of pupils in these schools, some additional information on the school populations is presented.

As in large cities throughout the nation, Minneapolis has had substantial population changes over the last decade. Increasing numbers of low income and minority families have become concentrated in the city.

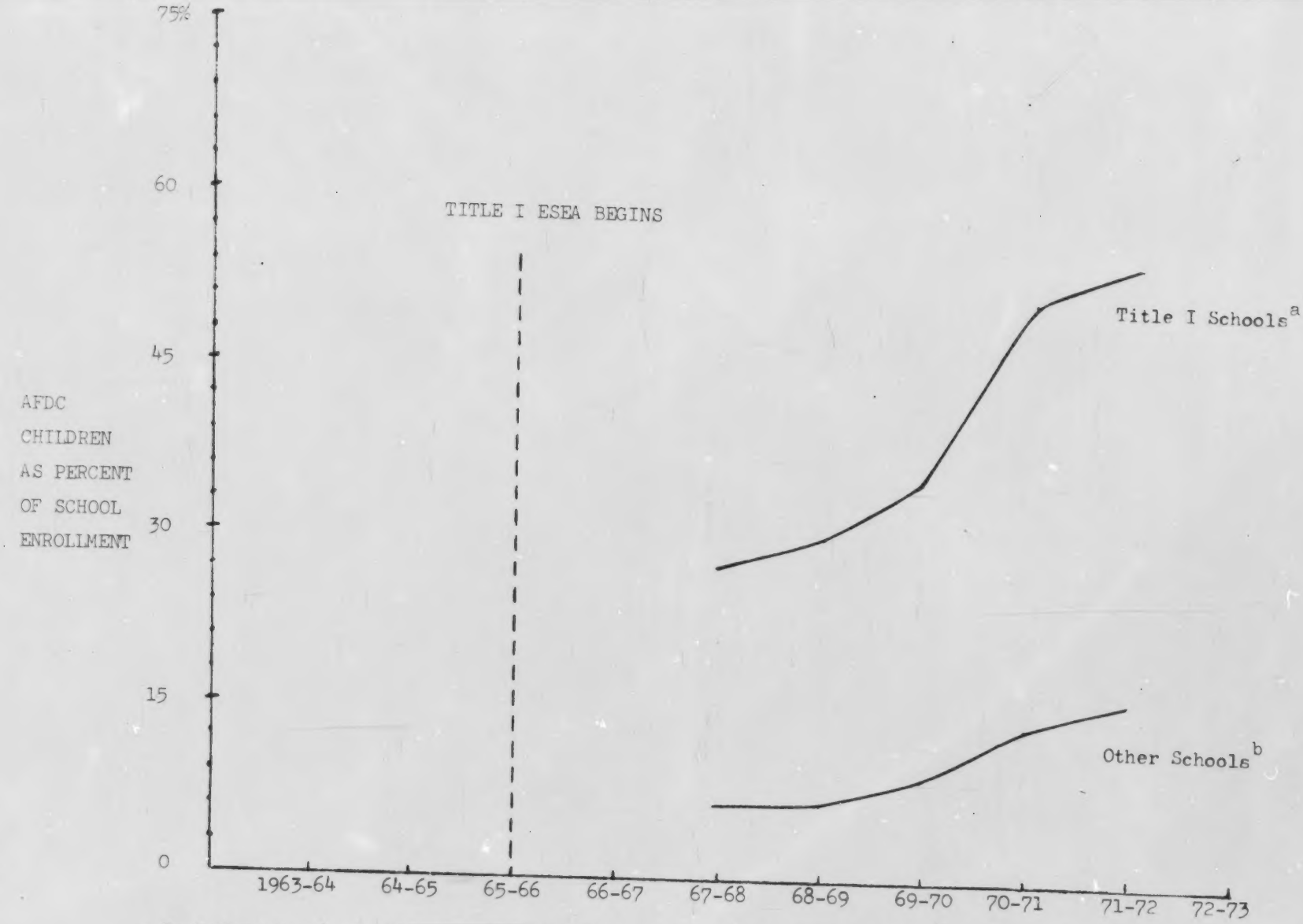
Figures 1 and 2 on pages 55 and 56 show the impact of these changes on the schools. The percentage of students from minority ethnic backgrounds is shown in Figure 1 for 1963 through 1972. Figure 2 shows the percentage of children living in families receiving Aid to Families with Dependent Children (AFDC) from 1967 through 1972.

The trends are clear. The increase of minority and low income students in the fourteen Title I schools has been substantial while increases in non-Title I schools--and schools which have not consistently been designated as Title I--have been moderate. The gap between the two groups of schools has been widening since Title I began. (The Minneapolis schools desegregation plan, which was initiated in junior high schools in 1973-74, will make a substantial impact on elementary schools when they are desegregated in 1974-75.)



a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.
c Minority Sight Count included only Blacks and Indians in years preceding 1968-69.

Figure 1. MINORITY STUDENTS - MINNEAPOLIS ELEMENTARY SCHOOLS



a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.

Figure 2. AFDC - ELEMENTARY SCHOOL MEDIANS

(In 1967-68, students from minority groups other than Blacks and Indians were included in the school's sight count for the first time. This change had little impact on the trend line shown in Figure 1 since 91% of all minority pupils in Minneapolis elementary schools were either Black or Indian.)

Figure 3 shows the rate of pupil turnover for the Title I and non-Title I schools. Because the formula for determining the turnover rate has changed on several occasions one should not conclude from looking at the trend lines that the turnover rate has been steadily declining. The change may be due to the formula used. However, one observation is apparent: Title I schools have consistently had a much greater turnover rate than non-Title I schools.

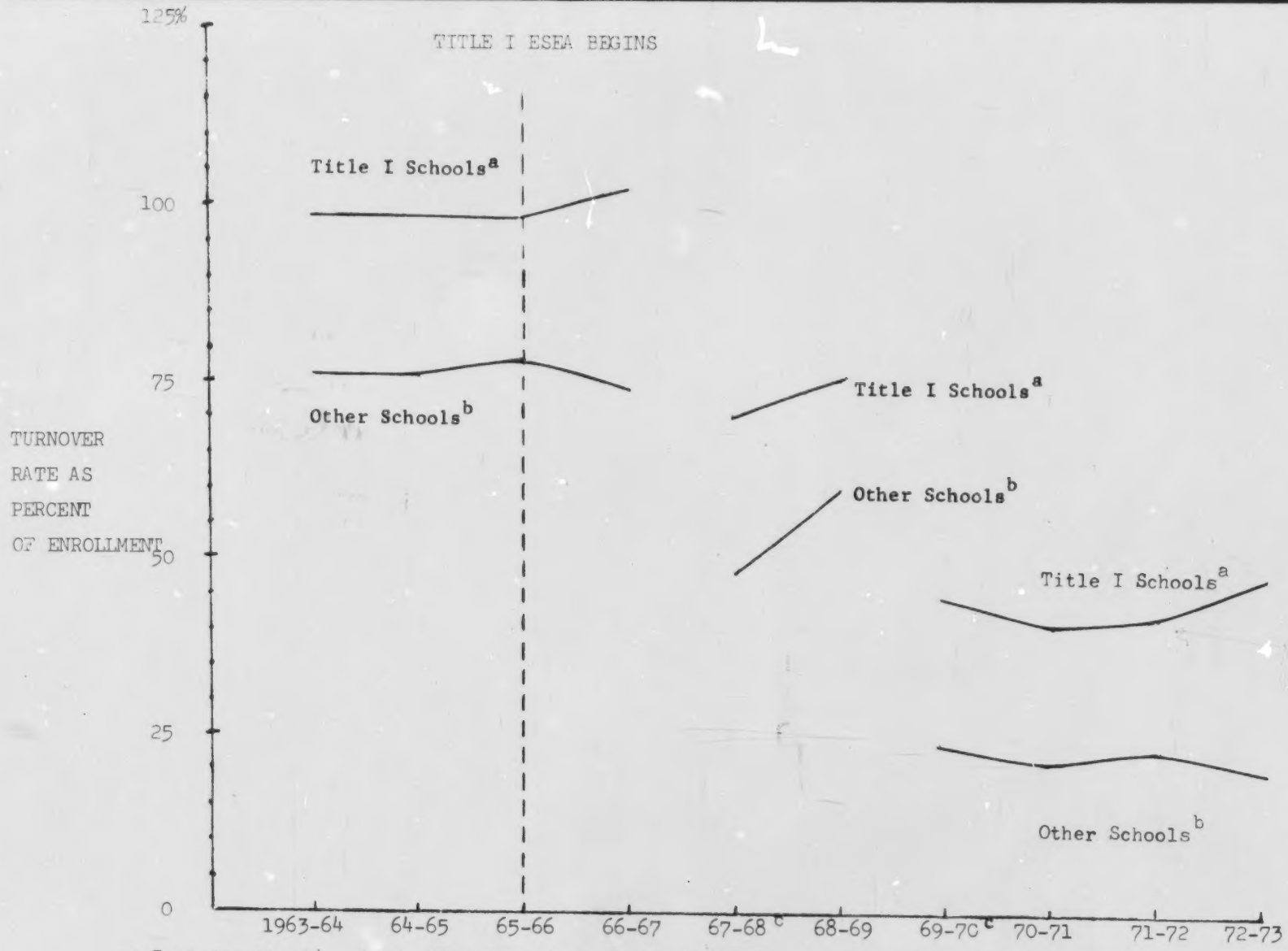
In summary, Title I schools have been increasing in minority population, an increasing number of children within those schools comes from poor families, and the pupil turnover rate continues to be much greater than in non-Title I schools.

Studies showing that low income children, as a group score lower on achievement tests than do middle or upper income children are abundant. In view of the large increase in the percentage of low income children in the Title I schools of Minneapolis over the last seven or eight years, one might predict a downward trend in achievement test scores.

Research on race and achievement tests is not so clear cut as is research on race and economic status although cultural or racial bias in certain ability tests has long been demonstrated. If achievement tests are biased against minority children then added weight could be given to a prediction of declining test scores in the Title I schools.

The bulk of the evidence suggests that test scores in Minneapolis Title I schools will decline from 1965 to 1973.

We turn now to an examination of achievement test scores in Minneapolis Title I schools during a time when the numbers of low income and minority children were increasing subtantially.



a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.
c Turnover rate formula changed from previous formula

Figure 3. ELEMENTARY SCHOOL TURNOVER RATE

Figures 4 through 8 present reading and "readiness" achievement test scores from a variety of tests. The fourteen schools which were consistently eligible to receive Title I funds (hereafter called core schools) are compared with all other schools.

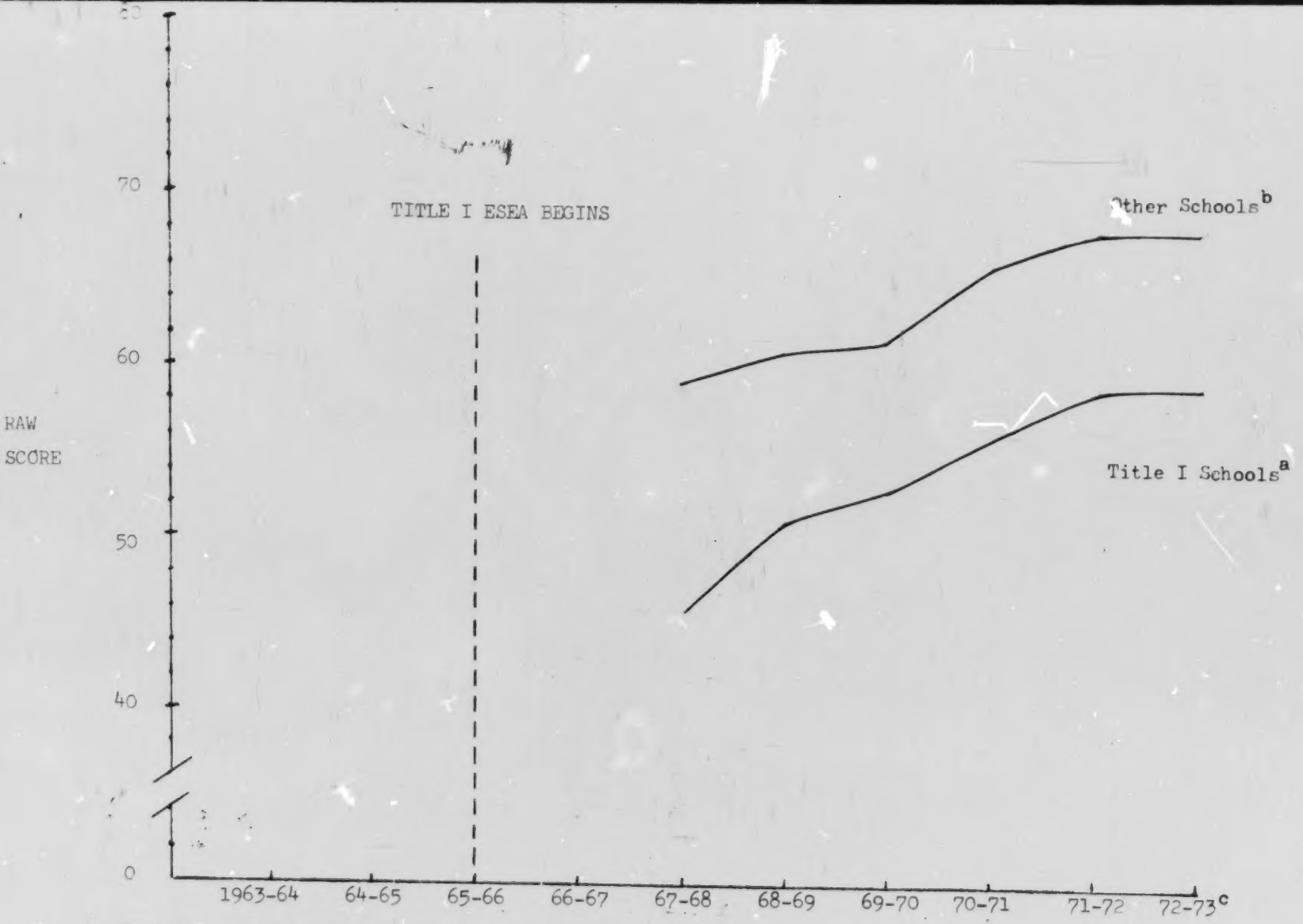
The trend lines in the figures are based on the median raw score for the median school in each of the two groups: The core schools and the non-core schools.

Because the citywide testing program has changed over the years it is not possible to show achievement score trends for more than several years at a time.

Figure 4 presents one of the significant trends which has occured in the Minneapolis Public School system. Since the first year that the Metropolitan Readiness Test was used in the first grade (1967-68), the median score for both the core schools and the non-core schools has been constantly increasing.

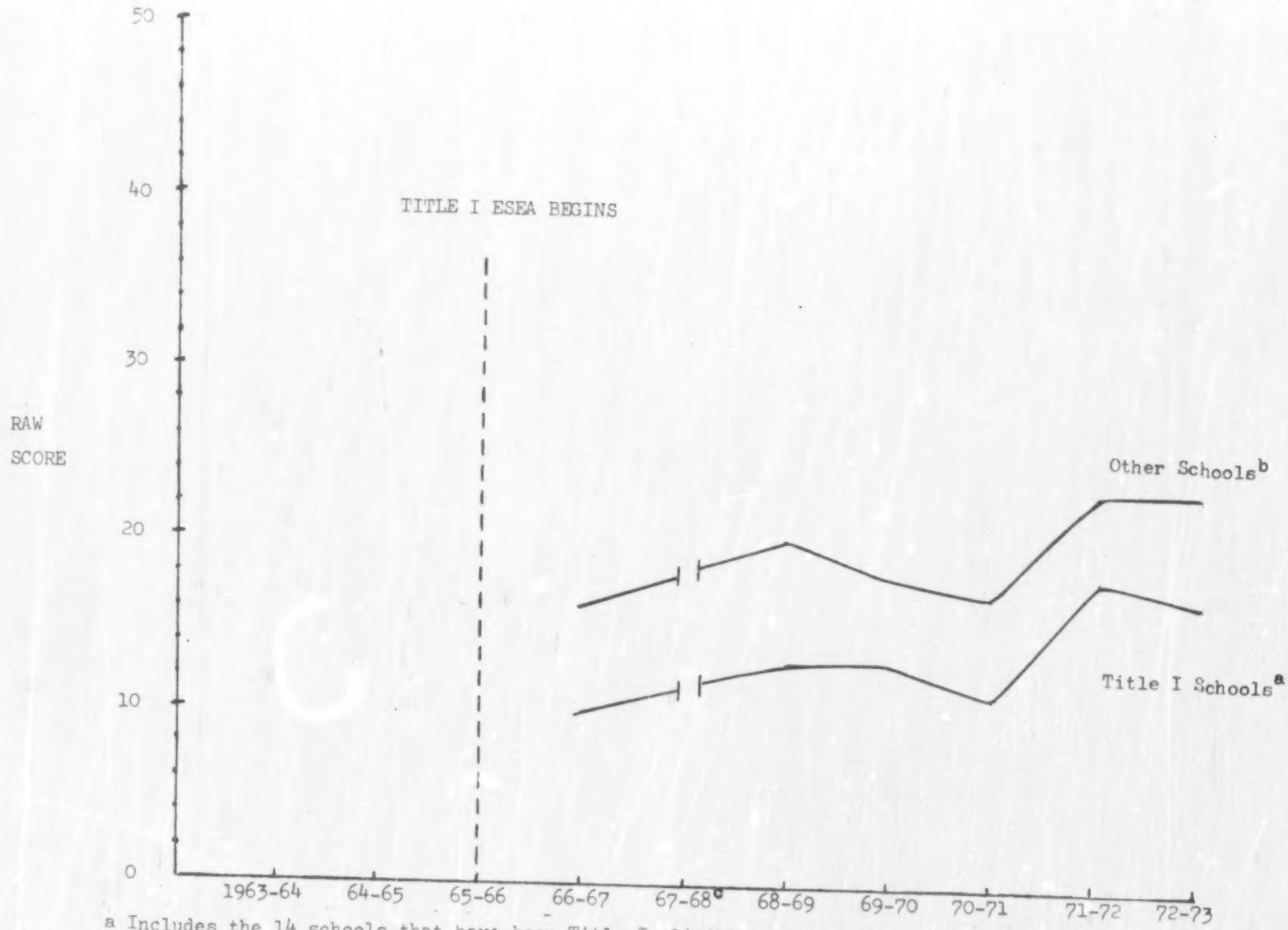
This increase is particularly noteworthy in the Title I schools--schools in which the proportion of low income children has increased dramatically over the same time span. The raw score for the core schools has increased 12 points since 1967-68. The median Title I school performed as well on the test in 1972-73 as did the median non-Title I school in 1967-68.

Many factors may have contributed to these test score gains. Educational television, changes in the kindergarten curriculum--which placed greater emphasis on teaching the alphabet beginning in 1969--and testing children at somewhat older ages in recent years may all have influenced test scores. These factors, however, operated in Title I and non-Title I schools alike. Any closing of the gap between the two groups of schools may possibly be due to Title I programs rather than to these other factors.



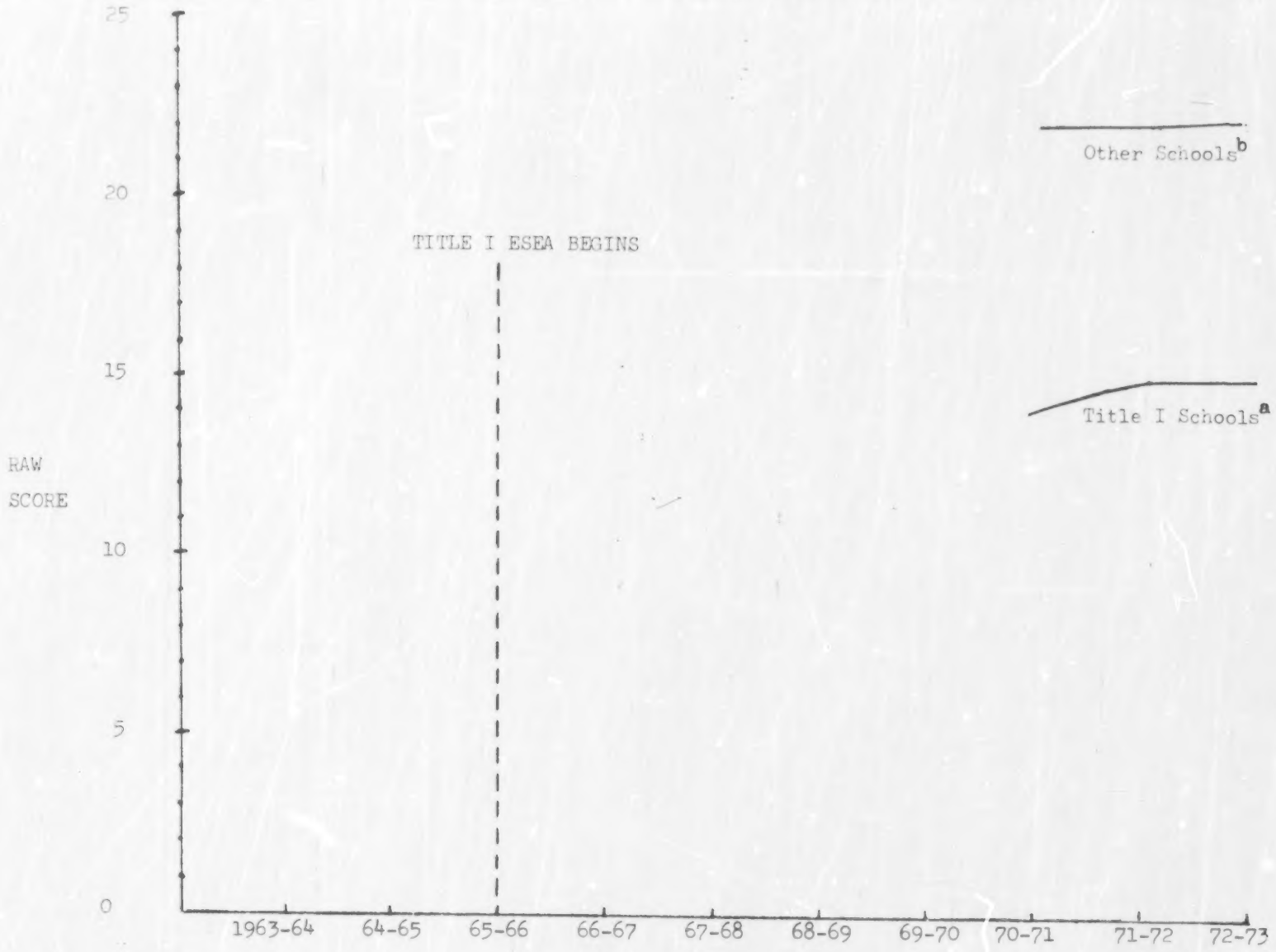
a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.
c Form B used

Figure 4. METROPOLITAN READINESS TEST, FORM A
1st GRADE MEDIAN SCORES



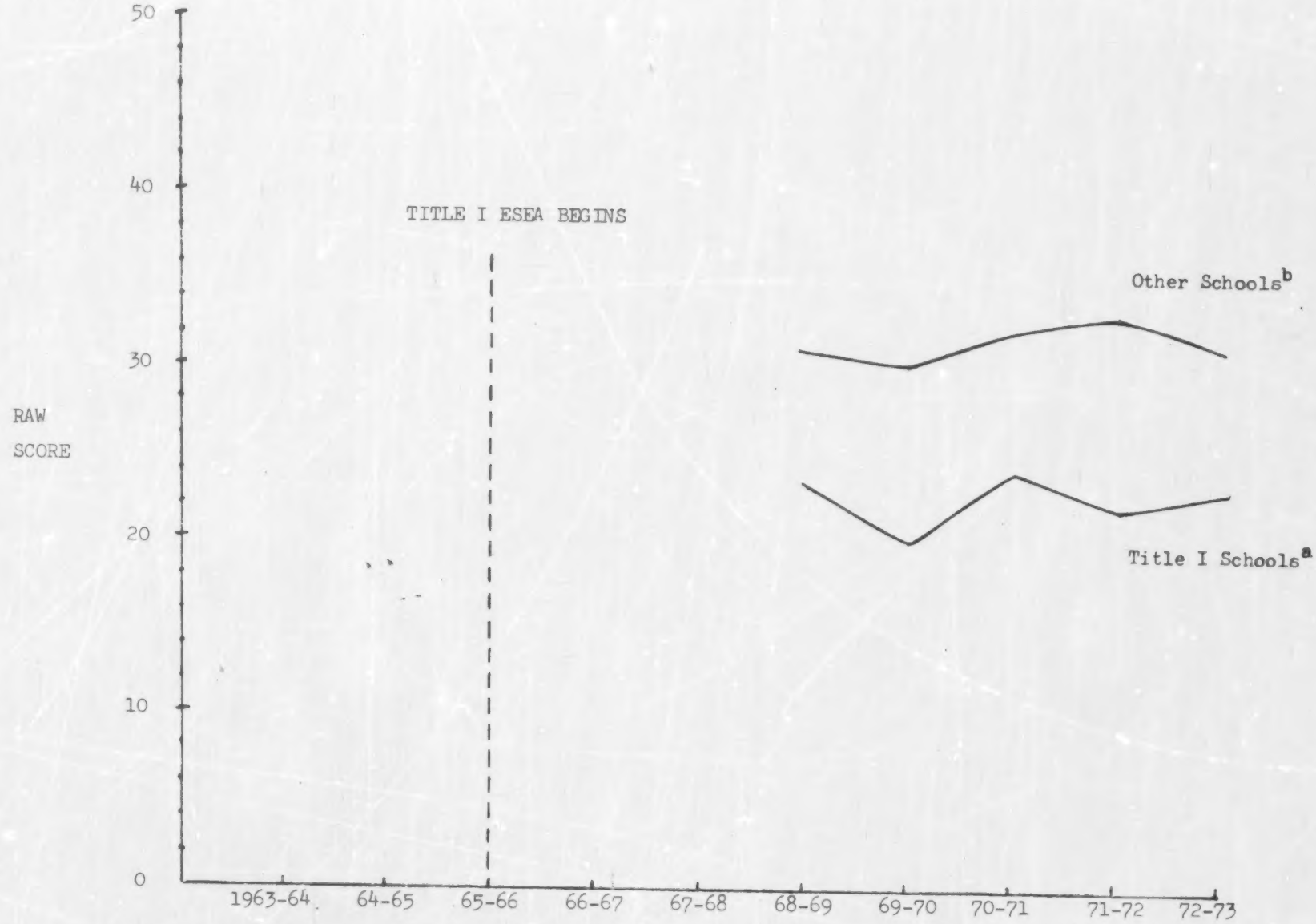
a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.
c No citywide test results available for 1967-68 2nd graders.

Figure 5. BOND-BALOW-HOYT READING TEST, FORM L-1, WORD RECOGNITION, 2nd GRADE MEDIAN SCORES



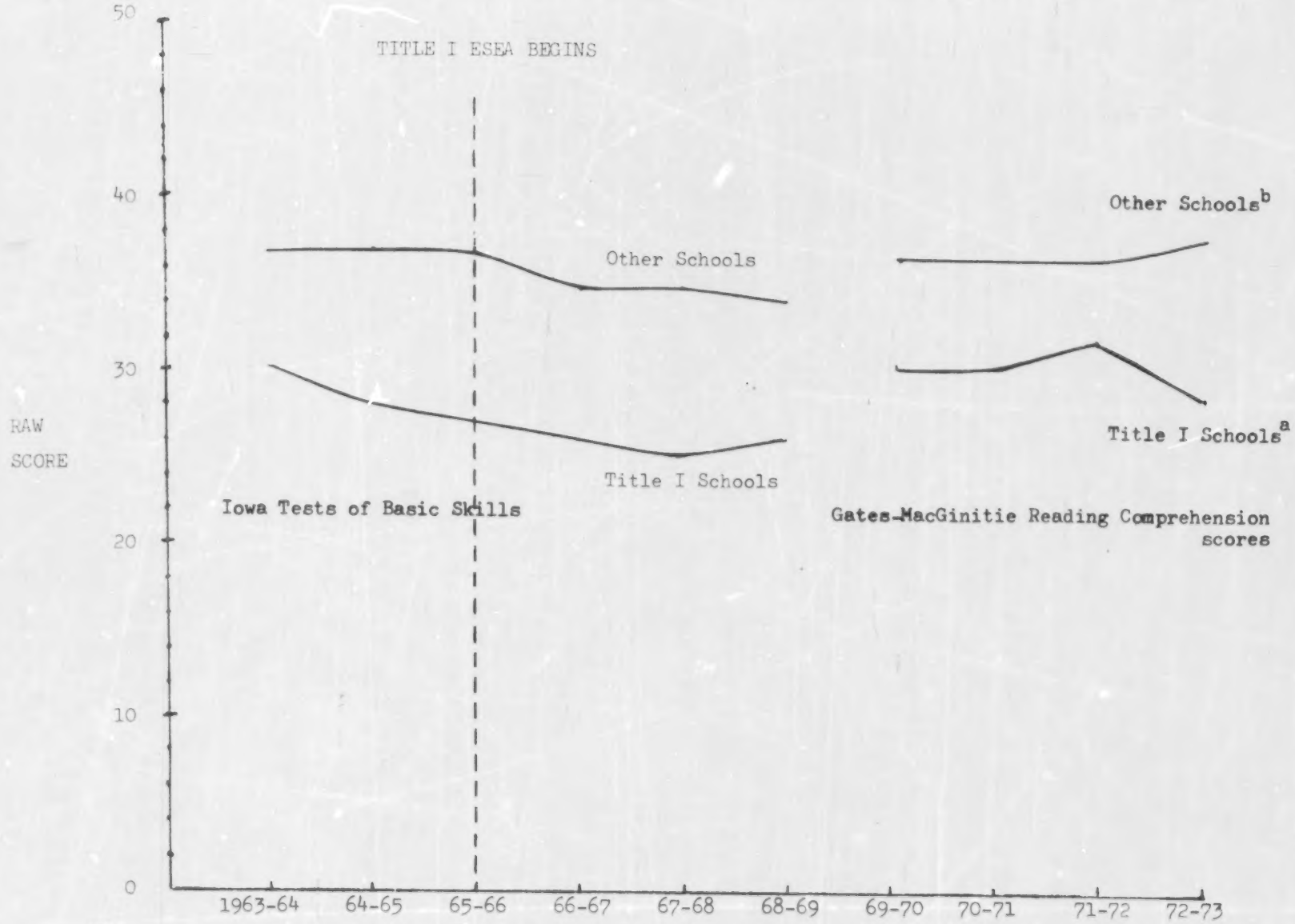
a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.

Figure 6. GATES-MACGINITIE READING TEST, PRIMARY C, COMPREHENSION 3rd GRADE MEDIAN SCORES



a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.

Figure 7. GATES-MACGINITIF READING TEST, SURVEY D, FORM 1-M, COMPREHENSION 5th GRADE MEDIAN SCORES



a Includes the 14 schools that have been Title I eligible every year since 1965-66.
b Includes non-Title I schools and the Title I schools not included in the above group. Number of schools ranges from 60 in 1963-64 to 50 in 1972-73.

Figure 8. IOWA TESTS OF BASIC SKILLS, FORM L, READING COMPREHENSION AND GATES-MACGINITIE READING COMPREHENSION 6th GRADE MEDIAN SCORES

This analysis has shown definite trends in achievement test scores in Minneapolis. In non-Title I schools a definite upward trend is seen in grades one and two. The trend line appears rather flat in grades three, five and six, and a downward trend took place in grade six through 1968-69.

In the fourteen Title I core schools the trend is clearly up in grades one and two; possibly up in grade three, not clearly established in grade five and down in grade 6. Comparable information for fourth grade was not available.

The bulk of the evidence from this analysis shows gains by Title I and non-Title I schools in the early grades. The relative distance between the two groups of schools appears to have remained about the same in most grades. Students in Minneapolis appear to be making gains, but Title I students did not appear to be closing the gap with non-Title I Minneapolis students.

However, the important finding is that Minneapolis pupils continued to improve or held their own when the increasing number of low income children in the city would have predicted a decline in achievement test scores. The fact that pupils in Title I schools have not lost ground to Minneapolis pupils in non-Title I schools is noteworthy in view of the much greater increase of low income and minority children in the Title I schools.

This analysis is not sufficient to permit cause and effect conclusions about the impact of Title I. Test scores were median scores for the schools involved and thus included some pupils in Title I schools who were not eligible for, nor receiving, Title I benefits. Other studies are needed to support these promising results.

The next section describes another way of looking at citywide test scores. This analysis compares median scores of children in Title I schools with median scores of all children in the city--including the children in Title I schools. Medians are based on a ranking of children; school medians are not used.

Guidance Department Comparison of Target and Citywide Test Scores: 1970-1972

The Department of Guidance and Assessment Services is responsible for the citywide testing program. This Department operates independently of the Federal Projects Department and the Research and Evaluation Department. Each year Guidance Services publishes a Report on Testing in Minneapolis Elementary Schools. Part of the 1972-73 report is devoted to a comparison of test score trends in the Title I schools and throughout the city.

This approach differs from the trend analysis conducted by the R and E Department in the following ways:

- All Title I schools are included, not just those core schools which have consistently been designated as Title I. Some schools may have been designated as Title I schools for only one or two years and may have received few benefits from Title I.
- Citywide test results include Title I schools. Differences observed between the two groups of schools are conservative. If Title I schools were excluded from citywide results, the differences would be greater.
- The same schools are not included as Title I schools each year--although variations are slight. Data for 1971-72 and 1972-73 are for the same 21 Target schools which had at least one year eligibility. Data for 1970-71 are for 21 Target schools, but three of these schools were not included in 1971-72 or 72-73 and three schools included in the 1971-72 and 1972-73 data were not included in 1970-71. Thus, eighteen schools were constant for the three year period, but three different schools were involved in 1970-71.

Figures 9-13 show citywide and Target school test results for 1970-1972 for grades 1-6, excluding fourth grade. Testing was conducted throughout the city in the fall of each year (fourth grade testing was not conducted in the fall and is, therefore, excluded from this analysis). Recognized standardized tests, such as the Gates-MacGinitie Reading Tests and the Metropolitan Readiness Test, were used. Testing details may be found in the report from which this summary is derived.[7]

[7] Report on Testing: Minneapolis Elementary Schools 1972-73, Department of Assessment and Guidance Services, Minneapolis Public Schools, Minneapolis Minnesota n.d., as revised December 1973.

Three major conclusions may be drawn from reviewing these figures.

First, the trend in the city is generally up, not down. Four of the nine graphs for citywide results show upward trends, three are flat--indicating no change--and two show a downward trend. Fifth grade reading comprehension and sixth grade mathematics--are relatively flat.

Second, the trend in Title I schools is more favorable than for the city as a whole. Seven of the nine graphs show upward trends; the other two--fifth grade reading comprehension and sixth grade mathematics--are relatively flat.

Third, greatest gains appear in the primary grades; those grades where Title I programs have been concentrated in recent years. Programs have been concentrated on primary reading since 1969 with relatively little emphasis on intermediate grade reading or mathematics until recently.

Whether or not these trends can be attributed to Title I programs will be discussed at the end of this section after reviewing other evidence.

A more detailed analysis of the graphs is reported here as quoted from the Guidance Department report.

Citywide Results

1. It is very encouraging and significant to note that for the past two years the citywide reading achievement levels at the primary grades have been increasing and that achievement continued to be the same as in previous years at the intermediate grades.
2. At Grade 1 the upward trend in school readiness during the previous six years is continuing. The median score for 1972 is one raw score point higher than 1971.
3. At Grade 2 the 1972 median score is the same as the 1971 median score. However, the 1971 median score was six points above the 1970 score.
4. At Grade 3 the upward trend of the previous years continues, with the median achievement in both reading vocabulary and reading comprehension being one raw score point higher in 1972 than in 1971.
5. At Grade 4, only test results for the fall of 1972 are reported. However, Guidance Department records indicate that the test results for 1972 are the same as they were in 1971.
6. At Grade 5 the citywide median scores in both reading vocabulary and in reading comprehension are the same in 1972 as they were in 1971.

7. At Grade 6 the citywide median scores in both reading vocabulary and reading comprehension are the same in 1972 as they were in 1971 and 1970.

8. Vocabulary and reading comprehension growth from Grade 5 to Grade 6 is 1.2 and 1.0 grade equivalents respectively. This growth was achieved by those students tested in October, 1971, in grade 5 and again in October, 1972, in Grade 6. The majority of Minneapolis elementary schools achieved at least a year's growth or more in reading vocabulary and in reading comprehension.

9. The members of the sixth grade class of 1972-73 that remained in their same school since kindergarten achieved grade equivalent scores of 6.6 in reading vocabulary and 6.2 in reading comprehension as compared to a publisher norm of 6.1.

Target School Results

1. In Grade 1, school readiness is higher in 1972 than in 1971 and 1970.

2. In Grade 2, reading vocabulary in 1972 is lower than in 1971 but higher than in 1970.

3. In Grade 3, reading vocabulary and reading comprehension are higher in 1972 than in 1971 by from three to one raw score, respectively.

4. In Grade 5, reading vocabulary is the same in 1972 as in 1971 and higher than in 1970.

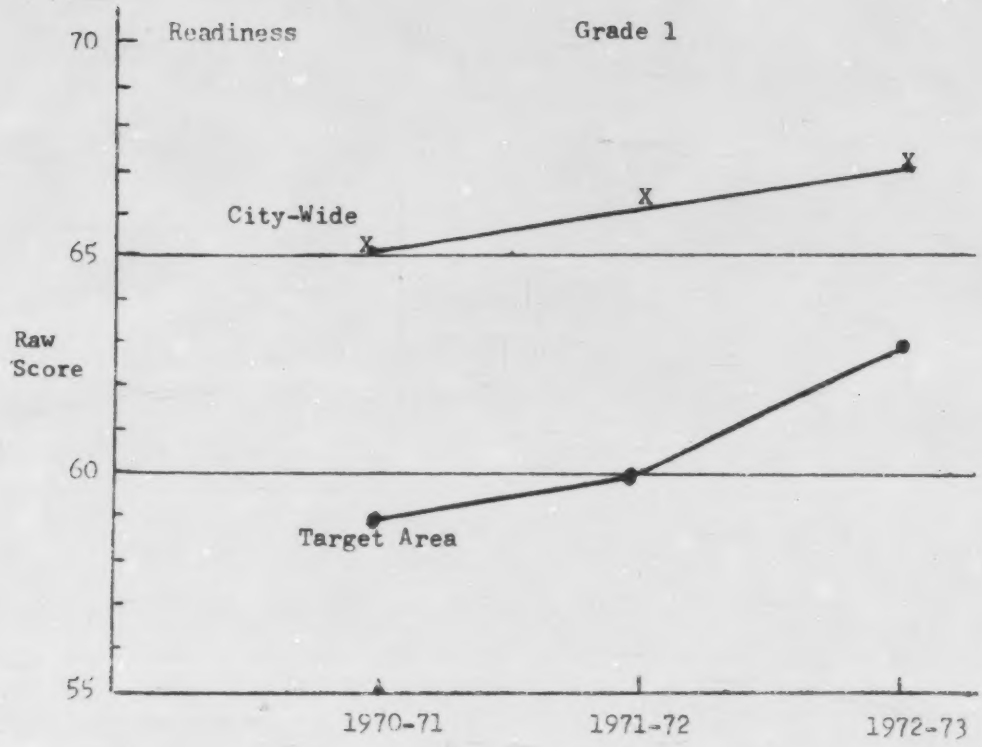
5. In Grade 5, reading comprehension is the same in 1972 as in 1971 and 1970.

6. In Grade 6, reading vocabulary is higher in 1972 than in 1971 and 1970.

7. In Grade 6, reading comprehension is higher in 1972 than in 1971 and 1970.

8. In Grade 6, mathematics is higher in 1972 than in 1971.

9. In contrasting the achievement of target and citywide test results over the past three years, there is evidence that in two of the three first grades the target area schools are making greater gains than the non-target schools. The same trend is evident at grades 5 and 6 with the citywide averages remaining the same over the three year period and the target area schools showing some improvement.



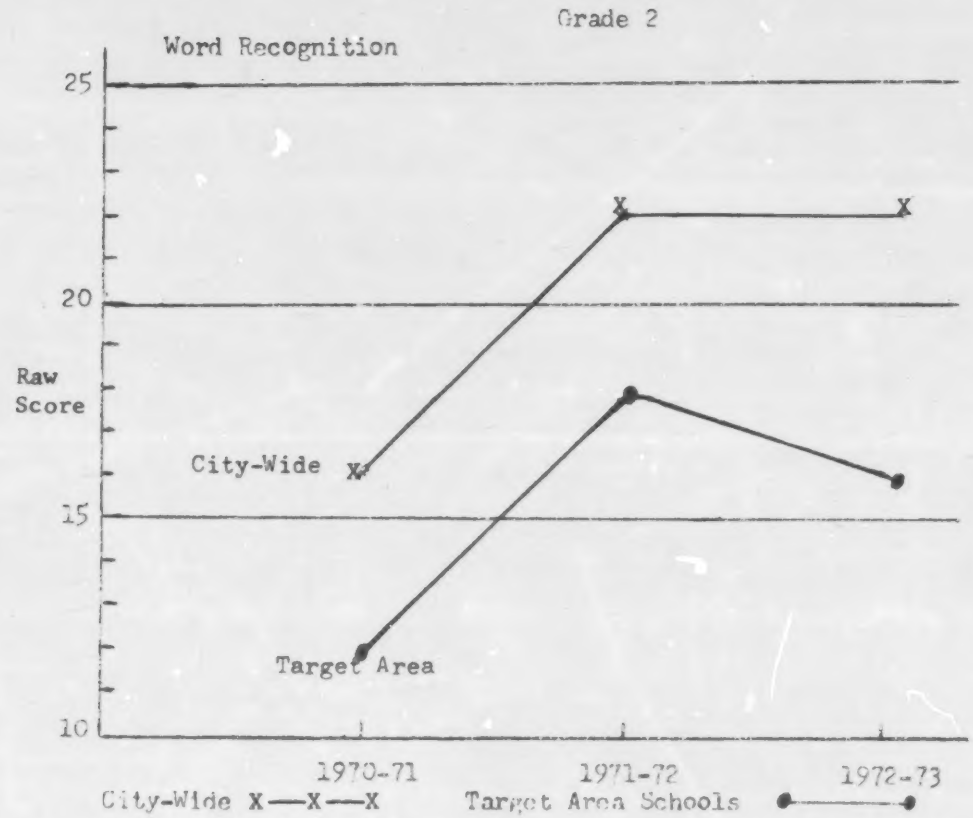
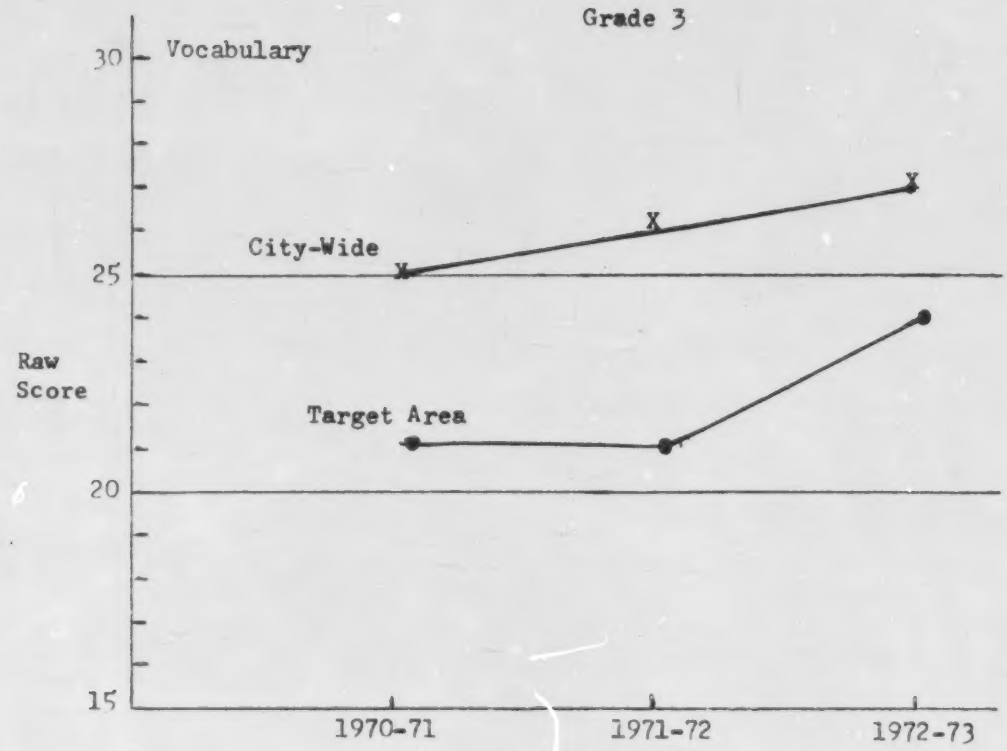
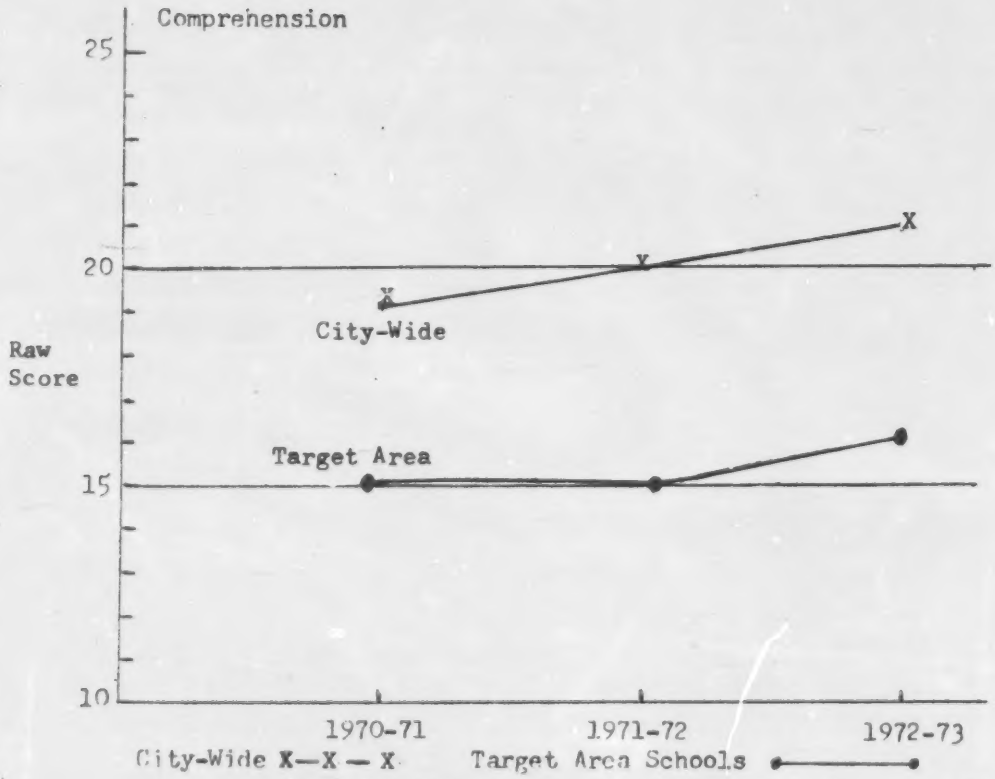


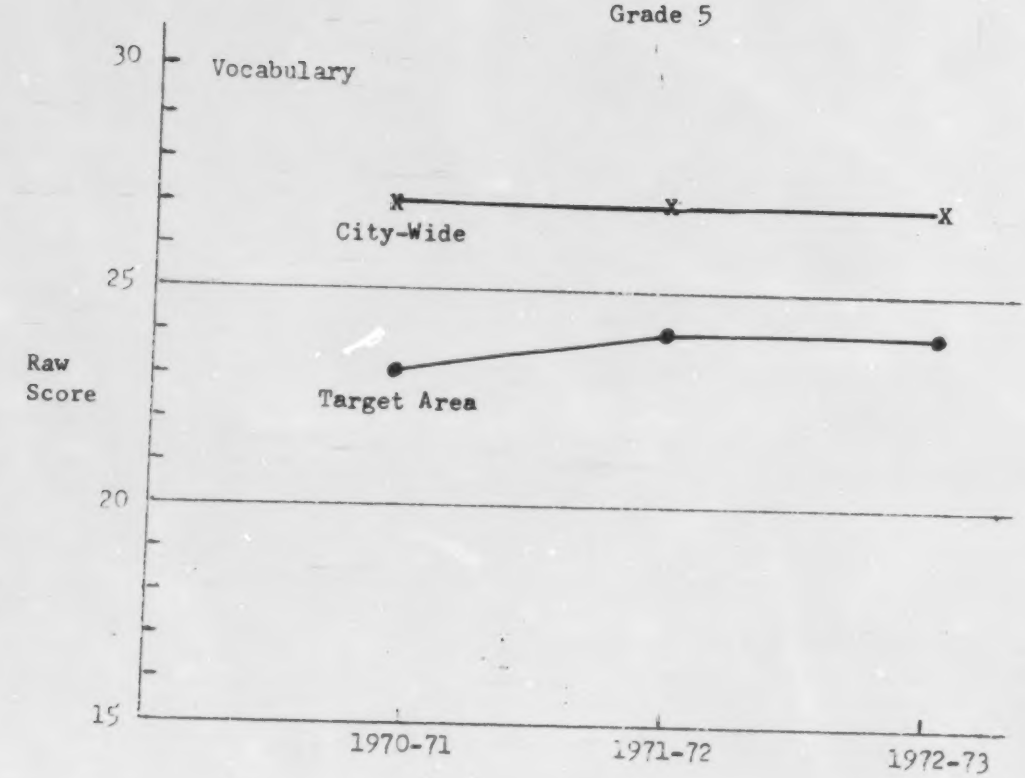
Figure 9. Three Year Summary Report of Test Results - Grades 1 and 2





City-Wide X—X — X Target Area Schools

Figure 10. Three Year Summary Report of Test Results



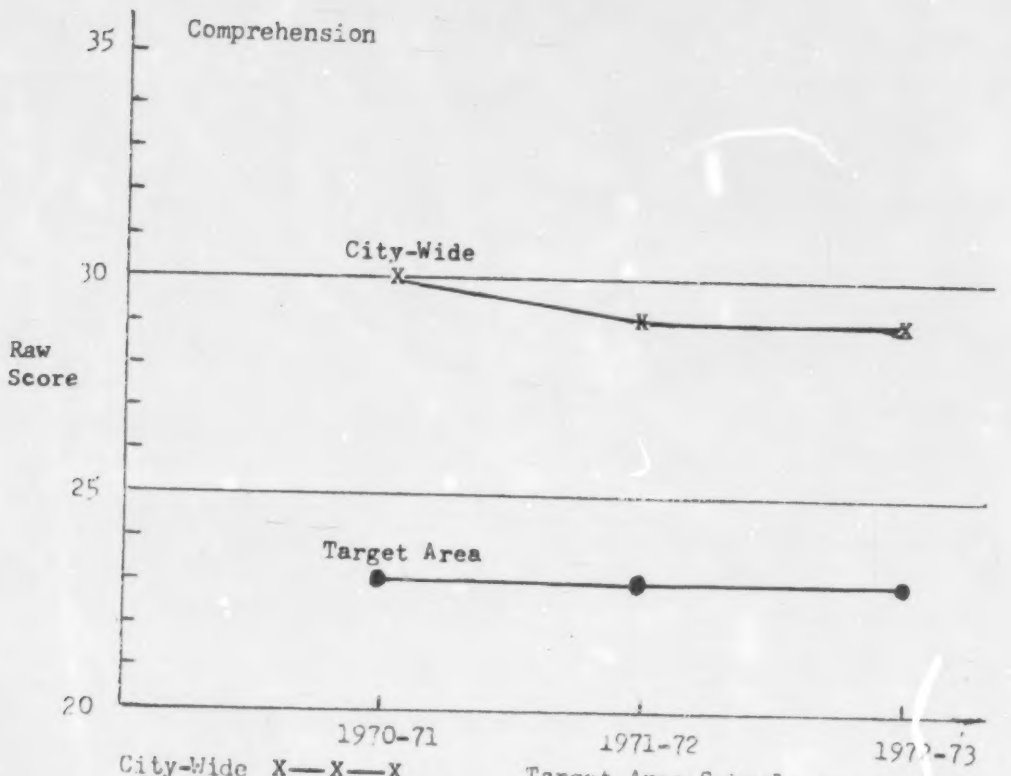


Figure 11. Three Year Summary Report of Test Results

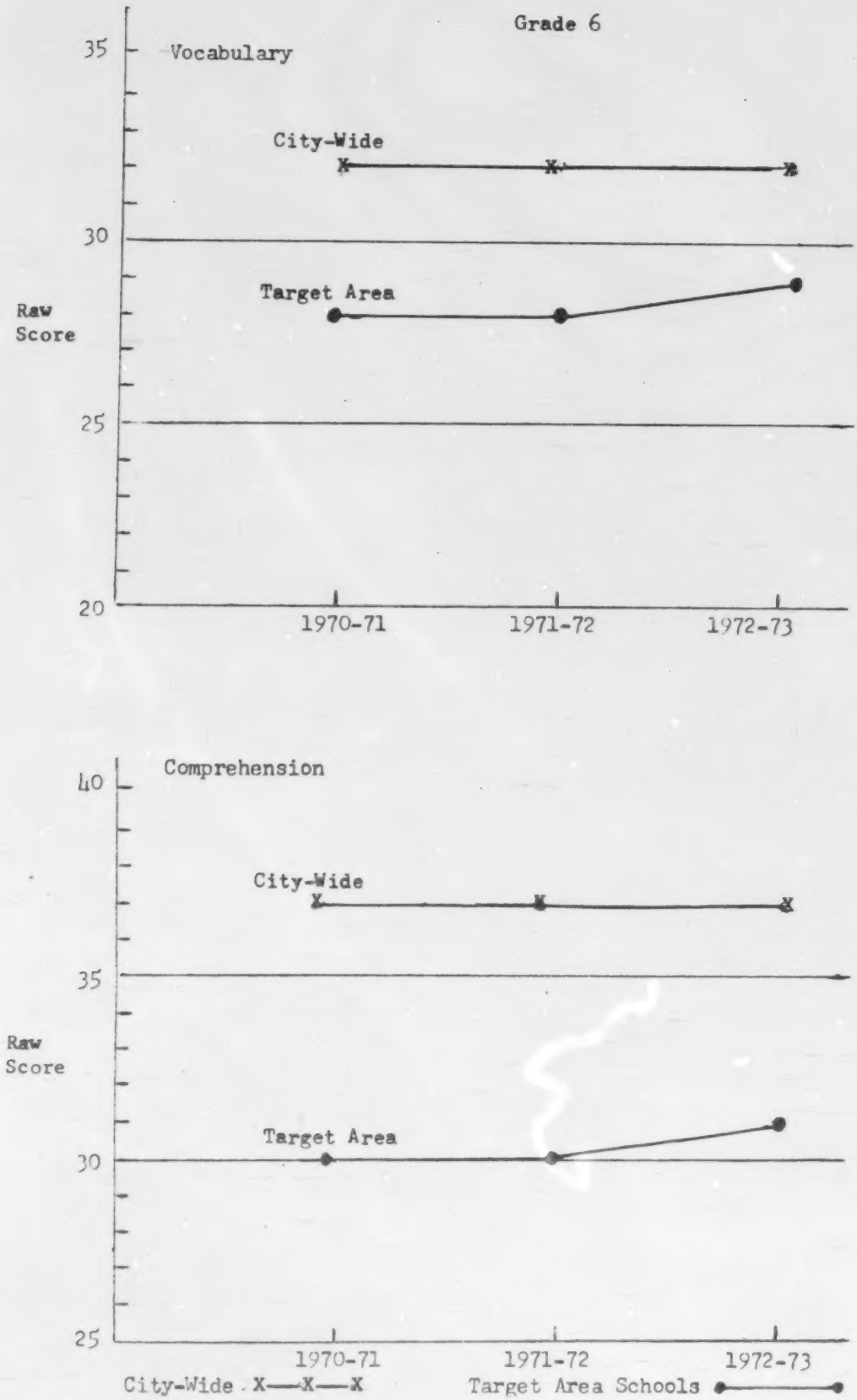


Figure 12. Three Year Summary Report of Test Results

Grade 6

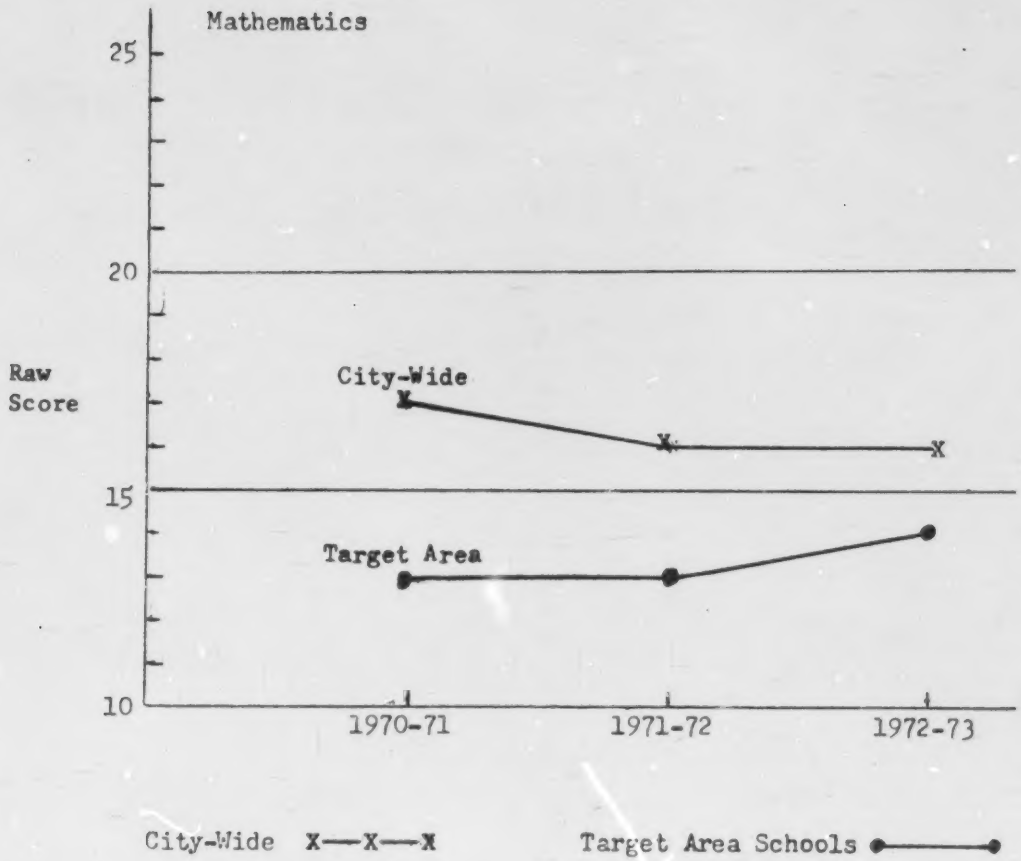


Figure 13. Three Year Summary Report of Test Results

This analysis of test scores from the citywide testing program, performed by another department of the school system, tends to confirm the conclusions reached by the R and E Department.

Achievement test results in Minneapolis generally show an upward trend. Median test scores for pupils from Title I and non-Title I schools yield results similar to results based on medians of school medians in each of the two groups.

The Guidance Department analysis shows a closing of the gap between Title I and non-Title I schools on seven of the nine measurements reported; one measure showed a divergent trend (second grade word recognition) and one measure showed stable results. This difference from the R and E analysis, which showed Title I and non-Title I schools maintaining their relative distance is probably due to the different methods of identifying Title I schools and calculating medians.

Core schools, in the R and E analysis, included the same Title I schools over an eight year trend analysis. Title I schools in the Guidance Department analysis were not the same schools over the three years; three of the schools differed.

Both analyses conclude that Minneapolis Schools in general, and Title I schools in particular, have shown gains in academic achievement over the last few years. Both analyses refute the speculation that achievement test scores drop as the percentage of low income and minority children increases in the school population.

A major weakness in the two studies is the inclusion of non-Title I children in the Title I data, i.e. the studies really compare Title I schools with non-Title I schools, not Title I program participants with pupils who are not Title I program participants.

In the next section, a comparison of Title I pupils and non-Title I pupils is made.

R and E Analysis of Reading and Math Progress of a Sample of Title I Intermediate Grade Pupils

In this section, reading and math achievement of a sample of Title I pupils is compared with achievement of a similar group of pupils not in Title I schools.[8]

[8] Bergeth, R. An Analysis of the Reading and Math Growth of Minneapolis Intermediate Grade Title I Students 1969-1971. Minneapolis: Minneapolis Public Schools, 1972.

Most of the Title I reading and math emphasis during 1969-1972 was placed at the primary grade level. Little emphasis was placed on the intermediate grade level at least on any large scale effort during this period. However, during this period one study was conducted to determine what progress was being made by the intermediate grades. The major purpose of this study was to ascertain the reading and math progress made by Title I eligible intermediate grade students who resided and attended school in the Minneapolis Public Schools' Target Area. A comparison group of students was also selected for study from the non-Target schools.

The population from which the Target and non-Target student groups were selected consisted of all 1969-70 fourth graders in the Minneapolis Public Schools whose test scores were at or below the 25th percentile on publisher norms of the Gates-MacGinitie Reading Comprehension Test. The Target study group, which was randomly selected, consisted of 126 students or 26 percent of the eligible Title I fourth graders. The non-Target group, also randomly selected, consisted of 154 students or 66 percent of the non-Target population.

In January 1970 and October 1971, both Target and non-Target student groups took the same form of the Vocabulary and Comprehension Gates-MacGinitie Test. At the time, both groups took the Modern Mathematics Supplement to the Iowa Tests of Basic Skills. The tests are part of the citywide testing program used in all elementary schools.

Target Area students made average grade equivalent gains, on the Vocabulary and Comprehension Tests, which were somewhat below the expected gains of one year, six months suggested by the publisher's norms. The non-Target students made average gains of one year, one month in vocabulary and one year, five months in comprehension while citywide the average Minneapolis student made expected gains of one year, six months or better in vocabulary and comprehension.

In math, the Target group had a pretest grade equivalent score of three years, zero months, and a posttest score of four years, four months. The non-Target group went from three years, zero months to four years, eight months. An average Minneapolis student had a grade equivalent score of 3 years, five months on the pretest and 5 years, six months on the posttest. Because the pretest and posttest were different levels and forms, caution should be used when interpreting the results of gains made by the student groups.

Another concern of this study was how Title I eligible Target students compared with a similar group of educationally disadvantaged non-Target students on the posttest scores. In analyzing posttest scores, the pretest score, verbal and nonverbal I.Q., and the students' mobility were statistically controlled by analysis of covariance. The results indicated that the non-Target group performed somewhat better in vocabulary and math and about the same in reading comprehension as the Target group.

This study showed that a small sample of Title I students did not progress as rapidly as a similar sample of educationally disadvantaged pupils who were not in Title I programs. Neither of these groups made gains equal to pupils in general throughout the city.

The Title I effort in Minneapolis has increasingly focused on teaching basic skills in the primary grades. After the generally diffuse program planning, typical of the nation's Title I effort from 1965 to 1969, Minneapolis zeroed in on basic skills in grades 1-3 in 1969-70. Project administrators predicted, at that time, that program development would require three to four years before fruition.

Assuming the correctness of that prediction, one would not expect substantial gain among the intermediate pupils involved in the study just reported.

The next section describes a study which looked at reading progress of Title I pupils who were in third grade in 1972-73, and their older siblings.

ETS Sibling Control Study of the Title I Pyramid Reading Program

The ETS study is noteworthy because it followed the same students for three years and compared their progress with the progress of their older siblings who had not been enrolled in the Title I Pyramid Reading Program. Thus, family and economic factors were controlled to a degree not often possible.

This study was really an attempt to measure the impact of one Title I project in Minneapolis. It is included as part of the overall program evaluation because of its scope. Over 8,000 pupils were involved in the project in 1972-73.

The study design and its results are given on pages 49-51. In brief, the investigator concluded that although pupils in the Title I project typically had higher test scores than did their older siblings (when the siblings were at the same age level as the Title I pupils) these increased test scores could not be attributed to the effects of the project.

What Impact Has the Title I Program Had in Minneapolis?

In this section we looked at four approaches to measuring Title I program impact in Minneapolis.

The R and E analysis of "core school" test scores since 1965 showed Title I schools were making gains in achievement about equal to gains being made in other Minneapolis schools; the gap was not closing. Greatest gains appeared in grades one and two; results in grades five and six were equivocal.

The Guidance Department analysis of trends since 1970 showed Minneapolis scores improving and scores in Title I schools improving even more; the gap was closing. Again, results were more favorable for the early grades.

Differences between the two studies were probably due to differences in the definition of Title I schools and to different statistical techniques.

Neither study suggests that Title I pupils are going downhill in achievement. The most negative view is that gains of Title I pupils are paralleling gains made by non-Title I pupils in Minneapolis. Since the trend in Minneapolis is up in the first three grades, the trend for Title I pupils in Minneapolis is up. The most positive view is that Title I pupils are progressing at a faster rate than other Minneapolis pupils.

Either interpretation suggests a positive impact for the Title I program. In view of a substantial increase in low income and minority children in Minneapolis, one might predict a decline in test scores. Such a decline has not occurred.

In view of the much greater increase of low income and minority children in Title I schools than in non-Title I schools, one might predict a greater decline in test scores in Title I schools. Such a decline has not occurred.

A study of intermediate grade pupils failed to show superiority for Title I pupils over educationally disadvantaged pupils not attending Title I schools. In fact, the reverse occurred. However, the Title I program has not focussed on the intermediate grades.

It appears that Title I funds are making an impact in Minneapolis.

Although some evidence suggests strong positive gains resulting from specific Title I projects (see, for example, IPI Math, page 36, Mobile Learning Centers, page 47; and Basic Skill Centers, page 27, an ambitious attempt to validate the impact of the largest reading project met with little success. The fact that the greatest improvement is occurring in the primary grades, as predicted by project administrators at the start of the project several years ago,[10] lends some evidence to the belief that the Title I project is a causal agent for this improvement.

At present, our best conclusion is that the Title I program is having a positive effect in Minneapolis even though, in some instances, that effect means just "holding the line." We suspect that the effect is more positive than that.

Some individual projects are clearly effective in improving student achievement, but the total impact appears to be the result of many interacting forces. Teacher aides, improved teacher training, better materials, administrative decentralization may all play a part.

Whatever the causes, it seems that Minneapolis is progressing. Further progress in the intermediate grades may occur in the next few years as children who have benefitted from the primary grade program move into the intermediate grades.

---

[10] Kasbohm, M. Title I Pyramids Reading Program Administrative Report 1969-70. Minneapolis: Minneapolis Public Schools, December 1970.

A Note on Students' Opinions

In May 1972, Minneapolis Public School students in grades 7-12 responded to a Student Opinion Questionnaire.[11] This multi-factor questionnaire measured student opinions on fourteen factors related to school: Liking of School, Interest in Learning, Unfair Punishment, Self-Concept as a Learner, Friendly Atmosphere, Involvement in Decision Making, Class Discussions, Positive Reinforcement, Curriculum Relevance, Fear of Asking Questions, Perception of Progress in Learning, Racial Attitudes, Teacher Quality and Encouragement by Teachers.

In an unpublished report, responses of students in Title I schools were compared with responses of students from all other schools.

Students in Title I schools were more favorable toward school and teachers than were students from non-Title I schools.

A higher percentage of Title I school students gave positive responses to 65 items in the questionnaire.

A higher percentage of non-Title I students gave positive responses on two items.

No difference in response occurred for 29 items.

Students in Title I schools were clearly more positive on nine of the fourteen factors. Non-Title I school students were not more positive on any factor; no difference between the two groups occurred on five factors.

The nine factors favoring Title I schools were:

Positive reinforcement
Teacher quality
Encouragement by teachers
Fear of asking questions
Involvement in decision making
Liking of school
Unfair punishment
Curriculum relevance
Race

---

[11] Johnson, Lary and Faunce, R. W. Minneapolis Secondary School Students' Attitudes Toward School by Achievement, Race, and Sex Minneapolis: Minneapolis Public Schools, April 1973.

Title I school students, relative to students in other schools, could be broadly characterized as: liking school, not being afraid to ask questions in class, feeling that they had good teachers, feeling encouraged by teachers, believing that the curriculum was relevant to their lives, and having positive attitudes toward students of other races.

While one cannot draw a cause and effect relationship between the measured student opinions and Title I programs the results do tend to support the idea that "something" positive is going on in the low income schools in Minneapolis. At least, these results do not appear to conform to the usual picture of inner city youth.

Conclusions and Recommendations

The Title I Program in Minneapolis has been reviewed in this report. Almost 11,000 of the 69,000 children in the city's public and parochial schools received services during 1972-73. Title I funds of $3,408,083 supplemented the public school district's budget of $78,992,236.

Basic skills in reading and mathematics in the elementary grades were emphasized in accordance with a pupil needs assessment, state directives, administrative direction and the parent advisory council.

The net impact of the Title I effort in Minneapolis appears favorable. Title I pupils were not falling further behind their non-Title I classmates. In fact, they may be closing the gap, although more evidence is needed to be certain about this possibility.

Since children throughout the city appeared to be making better progress than children in other cities (included in the test publishers' norms) and since Title I children in Minneapolis were at least holding their own compared to non-Title I Minneapolis children, the progress of Title I children looks favorable. The fact that the proportion of low income children increased in the Title I schools, at the same time that gains in achievement occurred, gives added weight to the belief that Title I programs have been effective in Minneapolis. Typically, increases in the proportion of low income children in a district are followed by decreases in achievement test scores.

Gains were most evident in the primary grades; those grades which received the most emphasis from the Title I program.

Student opinions toward school, teachers, and a number of school related factors, were more favorable in Title I secondary schools than in non-Title I schools.

A four step evaluation of Title I projects emphasized description of project activities, evaluation of project operations, evaluation of project results, and a review of the evaluation by experts outside the district.

A number of individual projects produced well documented gains in student achievement over several years. IPI Math and the Basic Skill (reading) Centers were notable at the elementary level. The secondary school's Mobile Learning Centers also produced documented gains in reading.

An ambitious attempt to document the effectiveness of the Pyramids Reading Program--relative to previous reading programs--was not successful.

Pupils do learn under this program but the relative superiority of the program appears to lie in unmeasured factors such as teacher acceptance, pupil attitudes, and other input factors.

Recommendations

Recommendations are presented in two parts. First, program recommendations are given. Recommendations for evaluation are then presented.

Program Recommendations

In view of what appears to be a very favorable developing trend in student achievement one is tempted to say, "Whatever you're doing, do it some more." Certainly the evidence at hand does not suggest a need for drastic program change. Some ideas appear worth considering however.

1. Continue emphasis on those projects which have demonstrated strong positive growth in student achievement over several years (e.g. IPI, Basic Skill Centers, Mobile Learning Centers).

2. Direct increased administrative attention to the intermediate reading program and the developing elementary mathematics projects.

In order to capitalize on the gains shown in the primary reading project it is essential that the intermediate reading project receive continued attention.

The elementary math project also is in a developmental stage and will need more administrative support than some projects which are more fully developed.

Reorganization of the school district has created some difficulties for these projects. It is recommended that each of these projects be assigned an administrator responsible for project operations.

Evaluation Recommendations

1. Net impact evaluation efforts should be directed at obtaining more specific data on Title I students.

Some of the analyses made of Title I impact are based on school medians which include non-Title I students. Other data sources include different Title I schools from year to year. An attempt should be made to

obtain achievement test data of Title I students in the same Title I schools over the years.

2. Major efforts to provide process and product evaluation of the Intermediate Reading Project and the Elementary Mathematics Project should be made.

These projects are still in the early stages of development. Process evaluation should be emphasized for the next two years. Judgment on outcomes should be temperate during this developmental phase.

3. Non-achievement aspects of the Pyramids Reading Program should be explored.

Children appear to be learning to read under this program as well as their older siblings did under other reading programs. Other aspects of the Pyramids Reading Program may be superior. Teacher attitudes, pupil attitudes, cost and other aspects of the Program should be studied.

4. Study the attitudes of Title I students in a more rigorous fashion.

A student opinion survey suggested that Title I students had much more favorable opinions toward school than did non-Title I students. Verification of this finding and an exploration of the reasons underlying it are desirable.

5. Continue efforts to obtain a more stringent evaluation of centralized services and the effects of parochial school projects.

The nature of Title I "centralized services" makes their evaluation difficult. For example, how does one measure the impact of resource teachers on pupil achievement? Yet, the problem is not impossible and continued efforts should be made.

Evaluation of parochial school projects should be easier this year now that one year of program development is past. Additional efforts toward evaluating these projects should be made in 1973-74.

Appendix A

Needs Assessment Instrument

MINNEAPOLIS PUBLIC SCHOOLS
Information Services Center

FEDERAL PROJECTS GENERAL INFORMATION
SURVEY - 1971-1972 SCHOOL YEAR (01-32)

PLEASE COMPLETE ONE FORM FOR EACH PUPIL IN YOUR CLASS. THANK YOU!

NAME _____ SEX ____

SCHOOL _____ GRADE ____

Does or has this student participated in or received educational assistance from any program listed below, this school year (71-72)?

Check YES or NO...	YES (1)	NO (2)	
A-V Based Indian Resource Unit	___	___	(33)
IPI Math Program at Hall School	___	___	(34)
Prescriptive Instruction Center	___	___	(35)
Cassette Pilot Center at Clinton	___	___	(36)
UNISTAPS (SP ED) Program	___	___	(37)
Irving Adjustment Center	___	___	(38)
Interdistrict Project Hear/Imp	___	___	(39)
Student-Tchr Self-Enhancement	___	___	(40)
Basic Skills Center - Talking Typewriter Program	___	___	(41)
Summer School 1971	___	___	(42)
Lunch Program	___	___	(43)
Breakfast Program	___	___	(44)
Teacher Aides	___	___	(45)

In your professional judgment, which of the following creates, or is, a persistent problem for this pupil? Circle the severity of the problem from No Problem (0) to Severe (5).

Achievement in Reading	0	1	2	3	4	5	(46)
Achievement in Mathematics	0	1	2	3	4	5	(47)
Achievement in Spelling	0	1	2	3	4	5	(48)
Achievement in Language Arts	0	1	2	3	4	5	(49)
Work/Study Habits	0	1	2	3	4	5	(50)
Vision	0	1	2	3	4	5	(51)
Hearing Impairment	0	1	2	3	4	5	(52)
Speech Impairment	0	1	2	3	4	5	(53)
Physical Impairment	0	1	2	3	4	5	(54)
Chronic Disease	0	1	2	3	4	5	(55)
Mental Retardation	0	1	2	3	4	5	(56)
Social/Emotional Adjustment	0	1	2	3	4	5	(57)
Malnutrition	0	1	2	3	4	5	(58)
Attendance/Absence	0	1	2	3	4	5	(59)

* * * \

Appendix B

List of 1972-73 Evaluation Reports Available

Appendix B

Reports Pertinent to the 1972-73 Evaluation

Bergeth, R. and Randall, T. A Needs Assessment Study: Minneapolis Public Schools ESEA I Target Area Elementary Schools, 1971-1972. Unpublished manuscript, Minneapolis: Minneapolis Public Schools, 1972.

Bergeth, R. An Analysis of the Bryant YES Center Student Reading and Math Growth 1971-1972. Minneapolis: Minneapolis Public Schools, August 1972.

Bergeth, R. Bryant YES Center Student Reading and Math Growth, 1972-73. Minneapolis: Minneapolis Public Schools, October 1973.

Bergeth, R. An Examination of Lincoln Learning Center Student Progress in Basic Skills, 1972-73. Minneapolis: Minneapolis Public Schools, Oct. 1973.

Bergeth, R. An Analysis of the Reading and Math Growth of Minneapolis Intermediate Grade Title I Students 1969-1971. Minneapolis: Minneapolis Public Schools, 1972.

Berntsen, D., Krahmer, E. and Torgeson R. Final Audit Report for Minneapolis Public Schools Title I ESEA Projects, 1971-72. Minneapolis: 1973.

CTB/McGraw-Hill. Minneapolis Public Schools Title I Implementation Evaluation Model Final Report. Department of Programs and Services: Monterey, Calif., Sept. 1973.

Clark, S. Evaluation of the Mobile Learning Centers in Minneapolis Secondary Schools, 1970-71. Minneapolis: Minneapolis Public Schools, 1972.

Clark, S. Basic Skill Centers of Minneapolis, 1971-72. Minneapolis: Minneapolis Public Schools, December 1972.

Clark, S. and Marty, A. Job Corps Reading Program, Phillips Junior High School, Minneapolis, 1971-72. Minneapolis: Minneapolis Public Schools, January 1973.

Clark, S. Mobile Learning Centers of Minneapolis 1971-72. Minneapolis: Minneapolis Public Schools, January 1973.

Clark, S., Hestwood, D. and Orf, E. Mathematics Basic Skills Development Project 1971-72. Minneapolis: Minneapolis Public Schools, April 1973.

Clark, S. Basic Skill Centers of Minneapolis, 1972-73: An Evaluation. Minneapolis: Minneapolis Public Schools, January, 1974

Clark, S. Title I Math Program (Elementary) in Minneapolis, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

Clark, S. English Basic Skills, Phillips Junior High School, Minneapolis, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

Clark, S. Mathematics Basic Skills Development Project, Minneapolis, 1972-73. Minneapolis: Minneapolis Public Schools, in press.

Clark, S. Mobile Learning Centers in Minneapolis Secondary Schools, 1972-73: An Evaluation. Minneapolis: Minneapolis Public Schools, in press.

Johnson, L. Auxiliary Personnel in the Minneapolis Public Schools: A Profile. Minneapolis: Minneapolis Public Schools, September 1972.

Johnson, L. Minneapolis IPI Mathematics Project 1971-72: Third Year Evaluation. Minneapolis: Minneapolis Public Schools, November 1972.

Johnson, L., and Faunce, R. Minneapolis Secondary School Students' Attitudes Toward School by Achievement, Race, and Sex. Minneapolis: Minneapolis Public Schools, April 1973.

Johnson, L. The Fourth Year of IPI Mathematics at Minneapolis Hall School, 1972-73. Minneapolis: Minneapolis Public Schools, July 1973.

McCormick, T. An Analysis of Bryant Junior High School Student Reading and Math Achievement, 1972-73. Minneapolis: Minneapolis Public Schools, November 1973.

McCormick, T. Parochial Schools Project Director's Report 1972-73. Minneapolis: In press.

Norton, P. The Pyramids Reading Program Sibling Study; A Second Year Progress Report. Evanston: Educational Testing Service, 1972.

Norton, P. Pyramids Reading Program Sibling Study; Final Report. Evanston: Educational Testing Service, August 1973.

Ramberg, D. and McCormick, T. Lincoln Learning Center Project Director's Report, 1972-73. Minneapolis: Minneapolis Public Schools, October 1973.

Short, N. and Bruininks, R. Evaluation of the Minneapolis Public Schools - Parochial Schools Title I Cooperative Program, Spring 1973. Minneapolis: Author, no date.

The reports are available as a separate appendix. They are not included with this report because of their bulk.